



Upper School Course Offerings 2026-2027



THE MONTGOMERY ACADEMY

Upper School Course Catalog 2026-2027

Table of Contents

Welcome & Academic Overview.....	4
Contact Us.....	5
English.....	6
History.....	9
Science.....	13
Mathematics.....	16
World Languages.....	18
Health & Physical Education.....	25
The Arts.....	26
Technology.....	30
Other Electives.....	32



Welcome to the 2026–2027 Upper School Course Catalog!

Our Upper School curriculum is designed to challenge, inspire, and prepare students for success beyond Montgomery Academy. Building on the strong foundation developed in Middle School, students engage in a rigorous and dynamic academic program that encourages independence, curiosity, and leadership as they prepare for college and the opportunities that follow.

Within these pages, you will find descriptions of our core academic offerings, graduation requirements, and a wide range of elective courses. Each course is thoughtfully crafted to promote critical thinking, meaningful discussion, and deeper exploration of subjects, while electives allow students to pursue their interests and expand their perspectives. We look forward to partnering with you to make the Upper School years both challenging and rewarding as students grow into confident, capable young adults.

Upper School Academics

The academic year is divided into two semesters. A minimum of six courses is required for grades 9-11. A minimum of five courses is required for seniors. All senior courses must be passed to qualify for graduation. Each year-long course is equal to one unit of credit. Semester courses are equal to one-half unit of credit. A student must earn a yearly average of 65 to receive terminal credit for a year-long course, but must earn a yearly average of 70 to advance in the discipline.

Academic Support

Students who would benefit from further intervention may be referred for academic support services. Parents who are interested in learning more about academic support and/or classroom accommodations should contact the Upper School Counselor.

The Upper School facilities may be used for private tutoring sessions. To prevent a conflict of interest, employees of The Montgomery Academy must receive permission from their division director to tutor any MA student for compensation. A student may not be tutored by his or her teacher.

Graduation Requirements – Total 23 units

All units must be earned while in grades 9–12. Except in the case of a transfer student, all required credits must be earned at the Academy or at an institution approved by the Campus Director.

English	4 Units
History	3 units including the Human Geography, U.S. History, AP World or Modern World History
Mathematics	3 units including Algebra II (4 units required if no science taken in senior year)
Science	3 units including Physics/Biology/Chemistry (4 units required if no math taken in senior year)
Language	3 units of one language (Latin, French or Spanish)
Health & Physical Education	1 unit
Fine Arts	1 unit

Grading System

100-90	Excellent
89-80	Good
79-70	Satisfactory
69-65	Poor; may not advance in the discipline without remediation or repeating the course.
Below 65	Failure

A student will not receive a grade below 50 for a first quarter failure in any course. After the first quarter, the accurate grade will be reported even if it is below 50.

Parents will receive directions and a password to allow online monitoring of grades for their child.

Grade Averages

Grade averages for Upper School students are determined by the following method:

- Only courses taken at the Academy are used in determining a student's Academy grade average.
- Actual course grades will be averaged to figure a student's grade average.
- This actual average will be on a 100-point scale; no grade may exceed 100.
- Advanced Placement and Honors courses will be weighted an additional five points per semester for grade average calculations. The weighted grade will appear only on the transcript. Grade reports and other correspondence will reflect the unweighted grade. For example, a grade of 83 earned and reported home for an AP or Honors class becomes an 88 in grade average calculations and on the transcript.
- Successful remediation of a course with a year-end grade below 70 will result in a course grade of 70 for grade average calculations. If a course is repeated, the average of the two course grades or a 70 will be recorded, whichever is higher. (This assumes that the repeated course yields a grade of 70 or above.)

Academic Clearance

In order for a student to participate in extracurricular activities (athletics, speech & debate, chorus, or otherwise), a student should maintain a 70 or above average and be current in all assignments. If a student's average drops below 70 in any course at the end of a grading period (interim, quarter, semester), the Campus Director or Assistant Director will communicate with the faculty sponsor for the extracurricular activity. Together, in consultation with the student, sponsor, parents, and teacher, they will determine whether or not the student will be allowed to participate in the activity while the student works to improve academic standing.

Advising

A strength of The Montgomery Academy is the amount of support and guidance afforded its students. Upon entering the Upper School, each student is assigned to an advisor and an advisory group with other members of his or her grade. Students remain with their advisee groups throughout their Upper School careers; strong bonds among advisors and advisees develop and deepen during these years. An advisor is a student's advocate and guide in a variety of arenas, including that of course selection each spring.

Contact Us

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English

English I: Journey to the Self: Grade 9 (Year Course)

What is the self and how do we know it? English I is an introductory course to higher-level reading and more sophisticated writing and thinking that invites students to take the ultimate journey: to quest after identity and personhood. Genre-based, the course will explore thematic and mythic journeys to selfhood through poetry, short story, novels, drama, nonfiction, and myth with literary examples from around the world. Through close, active reading of these texts, students will encounter characters on the same odyssey of self-discovery that they and every other human being must take. Compositions will include both creative and analytical writing with heavy emphasis on close, active reading and interpretive writing; the lofty goal of the writing instruction is for students to write their way to richer textual and cultural knowledge; sharper aesthetic and critical appreciation of fine writing; deeper self-understanding; and more profound wisdom.

English II: Ethics of Deciding: Grade 10 (Year Course)

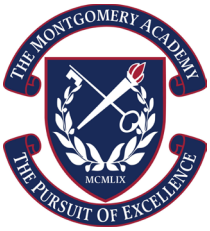
English II builds on the skills and knowledge students obtained in English I, both in content and thematic focus. Built upon the ideas of ethical decision making and moral responsibility, the 10th Grade course will ask students to reflect on major literary and philosophical ideas running through world literature. The goal in such an exploration of ideas is to foster greater student awareness of themselves, others, and the larger world of cultures and ideas, a world which demands a strong ethical sense and moral decision-making. The class will be discussion-based as students are encouraged to ponder their own thoughts and beliefs and then share those with their peers, always in the context of the course's readings. Those readings, occasionally determined by student choice, will be diverse and challenging and compositions personal and analytical/interpretive. Special attention will be given to the traditional analytical/interpretive essay as a mode of student reflection and greater moral awareness through literature and its ideas.

English III: Southern Ethos: Grade 11 (Fall Semester)

During fall semester, juniors will engage in thinking about Montgomery and the places they come from. Students will read fiction and non-fiction texts about Montgomery, Alabama, and the South. How have the stories that have been told about the South over the years informed both its identity now and our own senses of self? We will then move from an examination of the South as a place where we all live to independent work on the various places in which students might ground their identities. Assignments will be both analytical and creative and will involve an independent project.

English III: Reimagining the Past: Grade 11 (Spring Semester)

This junior seminar encourages students to find connections between literature of the past and literature of the present. The course pairs classic literature with modern retellings and reimaginings. In doing so, it will help students understand how authors revisit classic themes, characters, and genres in order to speak to the concerns of their own time. Compositions will encourage students to think analytically, interpretively, and creatively.



AP Language and Composition: Grade 11 (Year Course)

AP English Language and Composition cultivates the reading and writing skills that students need for college success and for intellectually responsible civic engagement. The course guides students in becoming curious, critical, and responsive readers of diverse texts and flexible, reflective writers of texts addressed to various audiences for different purposes. The reading and writing students do in the course will deepen and expand their understanding of how written language functions rhetorically: to communicate writers' intentions and elicit readers' responses in particular situations.

Prerequisites: The standards for admission include at least a 92 average first semester and a 92 average third quarter in English 10. To be considered for the class, students who do not meet the 92-average requirement for both first semester and third quarter may appeal by completing an appeals essay. Qualified appeals students, those who score adequately on the appeals essay and whom the English Department deems ready for the class's advanced content, will be admitted as space in the class allows.

English IV: The Archetypal Family: Grade 12 (Fall Semester)

From the earliest Greek tragedies and comedies to modern cinema, family is essential to art and the reality it depicts. The Archetypal Family seeks to build on each student's awareness of the mythic tradition of storytelling and the central position of family within that tradition. Texts will span world cultures and genres, reflecting the primacy of family structure and family bonds no matter geographical location or time period. Writings will include the analytical, the personal, and creative, encouraging students to better understand their own family unit and their role within it.

English IV: Brave New Worlds: Grade 12 (Spring Semester)

Brave New Worlds offers seniors a final Upper School literary experience grounded in alternate realities, surreal landscapes, and futures only dreams and myth can envision. A sampling of literature of the strange and fantastic—and even the horrifying and supernatural—from all over the world will be at the heart of this course. Writings will range from the analytical to the personal and creative.

AP Literature and Composition: Grade 12 (Year Course)

Ostensibly, the senior AP English course focuses on preparing students for the AP exam in May. More important, however, is the course's rigorous emphasis on critical reading and thinking and on writing confidently and effectively. Focusing on literary criticism, thematic and genre studies, and literary interpretation, students will read widely and voraciously all year long. Composition assignments will demand that students engage deeply and creatively with the texts, demonstrating profound and creative insights and the ability to express them clearly, eloquently, and convincingly.

Prerequisites: The standards for admission include at least an unweighted 87 average for AP 11 students and 92 for non-AP 11 students for both first semester and third quarter. Students who do not meet the grade requirement may still appeal by completing an appeals essay. Qualified appeals students, those who score adequately on the appeals essay and whom the English Department deems ready for the class's advanced content, will be admitted as space in the class allows.



English Electives

Journalism: Grades 10, 11, & 12 (Year Course)

Journalism is a year-long course that will provide students with hands-on experience in the process of researching, writing, and publishing original content for MA's student newspaper, *The Flyer*. Students will develop an understanding of the role of the media in society by reading local and national news publications, engaging in book studies, and participating in frequent class discussions. Students will learn to interview, write in a journalistic style, and layout content for publication. Students will also examine the vital role journalists play as truth tellers in any free society. Students who wish to enroll in the course must submit an application that includes a recommendation from an English or history teacher.

Atomized: Creative Responses to the Nuclear Age: Grades 10, 11, & 12 (Fall or Spring Semester)

In this semester course, offered both fall and spring, life lived under the mushroom clouds of the post-nuclear age is the focus: How has the presence of weapons of mass destruction shaped philosophical and artistic ideas and cultural and personal values since August 6, 1945? Central to the course will be an examination of artistic responses to this changed geopolitical landscape, responses which reveal artists both terrified and fascinated by notions of Sisyphean futility and apocalypse. In particular students will work toward finding their own modes of "fallout shelters" against the often grim challenges of living in an atomized world.



History

Human Geography: Grade 9 (Year Course)

Human Geography explores the branch of geography dealing with how human activity affects or is influenced by the earth's surface. In this course, students will be introduced to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of earth's terrain and resources. Students will learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences while studying different cultures on a global scale and learning about the methods and tools geographers use in their research and application.

AP Human Geography: Grade 9 (Year Course)

AP Human Geography is an introductory college-level human geography course. Students cultivate their understanding of human geography through data and geographic analyses as they explore topics like patterns and spatial organization, human impacts and interactions with their environment, and spatial processes and societal changes. **Prerequisites:** Minimum average of 93 in eighth-grade history and English and completion of an academic assessment. Admission will depend on the outcome of the academic assessment and space available.

The Modern World: Grade 10 (Year Course)

The Modern World introduces world history from the early modern era (c. 1500) to the present. Topics include global exploration, cultural change, revolution, imperialism, ideologies, industrialization, nationalism, human rights, and globalization. Students will analyze primary and secondary sources and discuss interpretations of major events and problems in world civilizations, also considering how events of the past relate to the present.

AP World History: Grade 10 (Year Course)

AP World History: Modern is an introductory college-level modern world history course. Students cultivate their understanding of world history from c. 1200 CE to the present through analyzing historical sources and learning to make connections and craft historical arguments as they explore concepts like humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation.

Prerequisites: a minimum weighted average of 90 in AP Human Geography or Human Geography and English for the year immediately preceding AP World History.

US History: Grade 11 (Year Course)

United States History is a survey of our nation's history from 1450 to the present through an approach that seeks to emphasize connection of past events to current issues. Students will seek to define American democracy, consider issues of diversity and discrimination, and explore the tension between states' rights and federal power. They will investigate the role of government in business and the economy, the evolution of American foreign policy, and the tension between civil liberties and public safety. Throughout the year students will develop their research and writing skills for historical arguments while improving their critical thinking.



AP US History: Grade 11 (Year Course)

AP US History is an introductory college-level U.S. history course. Students cultivate their understanding of US history from c. 1491 CE to the present through analyzing historical sources and learning to make connections and craft historical arguments as they explore concepts like American and national identity; work, exchange, and technology; geography and the environment; migration and settlement; politics and power; America in the world; American and regional culture; and social structures. **Prerequisites:** Minimum weighted average of 90 in AP World History or the Modern World and English for the year immediately preceding AP US History.

History Electives

AP Capstone Diploma Program

AP Capstone™ is a College Board program that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. AP Capstone comprises two AP courses—AP Seminar and AP Research—and is designed to complement and enhance the discipline-specific study in other AP courses. Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing receive the AP Capstone Diploma™. Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams receive the AP Seminar and Research Certificate™.



AP Capstone Seminar: American Studies: Grades 10, 11, & 12 (Year Course)

AP Seminar is a foundational course that engages students in cross-curricular conversations where they can explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. They synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision so they can craft and communicate evidence-based arguments.

Our focus is the study of our own regional culture and the people who made and make us who we are. This begins as a historical reflection that engages directly with the life of the present. This theme allows research topics that explore challenges and opportunities as related to our lives in Montgomery, as well as the broader region and nation. To qualify for the Capstone Diploma, members of the classes of 2028 or 2029 must enroll in Capstone Seminar as sophomores or juniors and Capstone Research a following year. Members of the classes of 2027, 2028, and 2029 can enroll in Capstone Seminar as seniors if they choose to pursue only that credit without the Capstone Diploma or Research Certificate. **Prerequisites:** Minimum weighted average of 90 in history for the year immediately preceding Capstone Seminar or teacher approval.

AP Capstone Research: Grades 11 & 12 (Year course)

AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000–5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense. **Prerequisites:** Completion of AP Capstone Seminar with a weighted 90 average and teacher approval.

AP United States Government and Politics: Grades 11 & 12 (Fall or Spring Semester Course)

AP U.S. Government and Politics is an introductory college-level course in U.S. government and politics. Students cultivate their understanding of U.S. government and politics through analysis of data and text-based sources as they explore topics like constitutionalism, liberty and order, civic participation in a representative democracy, competing policy-making interests, and methods of political analysis. **Prerequisites:** Minimum weighted average of 90 in history for the year immediately preceding AP Government or teacher approval.

AP Microeconomics: Grades 11 & 12 (Fall Semester)

AP Microeconomics is an introductory college-level microeconomics course. Students cultivate their understanding of the principles that apply to the functions of individual economic decision-makers by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; and market inefficiency and public policy. In addition to the AP curriculum, students explore the importance of personal finance and how investment in the stock market works utilizing business data and virtual stock trading through the Alabama Stock Market Game, a real-time simulation of the market. **Prerequisites:** Minimum weighted average of 90 in history for the year immediately preceding AP Microeconomics or teacher approval.

AP Macroeconomics: Grades 11 & 12 (Spring Semester)

AP Macroeconomics is an introductory college-level macroeconomics course. Students cultivate their understanding of the principles that apply to an economic system as a whole by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like economic measurements, markets, macroeconomic models, and macroeconomic policies. In addition to the AP curriculum, students explore the importance of personal finance and how investment in the stock market works utilizing business data and virtual stock trading through the Alabama Stock Market Game, a real-time simulation of the market. Requirement: Minimum weighted average of 90 in history for the year immediately preceding AP Macroeconomics or teacher approval.



Psychology: Grades 11 & 12 (Fall or Spring Semester)

Psychology is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with several major subfields within psychology. Students will also learn about the ethics and methods psychologists use in their science and practice.

Social and Political Philosophy: Grades 11 & 12 (Fall or Spring Semester)

Social and Political Philosophy is a course rooted in values related to groups of individuals – a community, society, or nation. We will explore questions such as – What makes a society good/bad? How is morality determined? What determines the ethics of an action? The theories of social and political philosophers from Plato to John Locke, from Jean Jacques Rousseau to Michael Sandel will provide a justification for the relationship between an individual and the government. Issues such as fairness, justice, human rights, and the responsibilities of government arise in the theories advocated by social and political philosophers. The course will use current events as a guide in the journey of relating the philosophy of the past, to understanding the application in the present day, and predicting the direction of the future.



Science

Physics I: Grade 9 (Year Course)

Physics I is a conceptual-based study of classical mechanics, including a description of motion, laws of motion, momentum, work, and energy. This course provides a critical understanding of general scientific principles, with an emphasis on the fundamental principles that govern the physical universe. The course will allow students to clearly communicate fundamental knowledge particular to physics with their peers using appropriate vocabulary. Students will apply physical principles and concepts to solve problems. These solutions will involve the use of basic algebra.

Physics I Honors: Grade 9 (Year Course)

Physics I Honors is a conceptual-based study of classical mechanics, including a description of motion, laws of motion, momentum, work, and energy. These concepts are developed at a higher level than in the regular course. Laboratory activities often involve a mathematical analysis, and the application of algebra, geometry, and basic trigonometry is used as well. Students will be taught right triangle trigonometry. **Prerequisites:** 93 or higher in Physical Science and teacher recommendation.

Chemistry: Grade 10 (Year Course)

Chemistry is an extensive study of the composition and properties of matter. This introductory course is designed to provide a strong background in conceptual chemistry with an emphasis on mathematical application. Some of the topics covered in this course include: the Metric System, Physical and Chemical Properties of Matter, the Law of Conservation of Mass, Nomenclature, Balancing Chemical Equations, Types of Chemical Reactions, Stoichiometry, Thermochemistry, and Lewis Structures. Laboratory experiments are conducted regularly to provide students with practical applications for the concepts covered.

Chemistry Honors: Grade 10 (Year Course)

Chemistry Honors is similar to Chemistry in that it is an extensive study of the composition and properties of matter. This course differs from the Chemistry course primarily in its depth of coverage, but also differs in its pace so that additional topics will be studied. A greater depth of conceptual understanding is also required in order to solve more difficult problems. Some of the topics covered in this course include: the Metric System, Types of Chemical Reactions, Balancing Equations, the Law of Conservation of Mass, Thermochemistry, Stoichiometry, Quantum Mechanics, Lewis Structures, the gas laws, solution preparation, and acids and bases. Laboratory experiments are conducted regularly to provide students with practical applications for the concepts covered. Some of the laboratory experiments are more complex in nature than those in the Chemistry course. **Prerequisite:** An unweighted average of 85 or higher in Physics I Honors.



Biology: Grade 11 (Year Course)

Biology is a laboratory-based science course that explores the fundamental principles of life through inquiry, experimentation, and real-world application. Students examine the structure and function of living systems, levels of biological organization, cellular processes, biochemistry, energy use in organisms, genetics, evolution, and ecology. By the end of the year, students will understand the basic principles of biology and how living systems work.

Biology Honors: Grade 11 (Year Course)

Biology Honors is a laboratory-based science course that explores the fundamental principles of life through inquiry, experimentation, and real-world application. Students examine the structure and function of living systems, levels of biological organization, cellular processes, biochemistry, energy use in organisms, genetics, evolution, and ecology. These concepts are developed at a higher level than in the regular course. Additionally, students will be expected to write formal lab reports and read and interpret scientific case studies. **Prerequisite:** An unweighted average of 85 or higher in Chemistry Honors.

Science Electives**Anatomy and Physiology I: Grade 12 (Fall Semester)****Anatomy and Physiology II: Grade 12 (Spring Semester)**

This class emphasizes the complementary nature of structure and function, homeostasis and its regulating mechanisms, and basic human metabolic processes. Students in this course will develop a deeper understanding and appreciation of the human body through a variety of methods: class discussion, case studies, lectures, videos, dissections, and other laboratory exercises. While the main focus of this course is the normal function of the human body, various medical applications and pathological conditions will also be explored. This course is designed to be a yearlong class, but it may be taken for only one semester. The course content is scheduled as follows:

- Anatomy I: anatomical terminology, body tissues, integumentary, skeletal, muscular, nervous systems, and the special senses
- Anatomy II: endocrine, blood, cardiovascular, immune, respiratory, digestive, urinary, and reproductive systems

Prerequisite: Biology

Astronomy: Grades 10, 11, & 12 (Fall or Spring Semester)

Astronomy explores the structure, origin, and evolution of the universe. Students will study the planets, moons, and other objects within our solar system, examining their physical properties, motions, and interactions. The course extends beyond the solar system to investigate stars and stellar evolution, including the life cycles of stars from formation to endpoints such as white dwarfs, neutron stars, and black holes. Students will also explore the large-scale structure of the universe, focusing on galaxies, their formation, and their evolution over time. Throughout the course, students will analyze astronomical data, develop scientific reasoning skills, and apply



physics and mathematics concepts to understand cosmic phenomena. Emphasis is placed on critical thinking, scientific inquiry, and connecting astronomical discoveries to current research and technology. Some field trips will be a part of this course since it will not be a traditional lab science.

AP Biology: Grade 12 (Year Course)

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore topics like evolution, cellular processes, energy and communication, genetic information transfer, ecology, and interactions. **Prerequisites:** An unweighted average of 90 or higher in Biology Honors or completion of a previous AP Science course.

AP Chemistry: Grades 11 & 12 (Year Course)

AP Chemistry is designed to bring all the aspects of chemistry—thermochemistry, chemical kinetics, electrochemistry, acid-base chemistry, and descriptive chemistry—together through a conceptual understanding of the underlying nature of chemical structure. Because reasoning is essential for the advanced chemist, application of these principles is stressed in this course through independent critical thinking, mathematical problem solving, and advanced laboratory skills. **Prerequisite:** An unweighted average of 90 or higher in Chemistry Honors.

AP Environmental Science: Grades 11 & 12 (Year Course)

AP Environmental Science is the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course requires that students identify and analyze both natural and human-made environmental problems, evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. AP Environmental Science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. This course includes a strong laboratory component. Students will perform experiments and analyses involving the study of air, water, and soil qualities as an essential core for the lab/field investigation activities. **Prerequisites:** An average of 85 or higher in Chemistry or a weighted average of 85 or higher in Chemistry Honors.

Environmental Science Grades 11 and 12 (Fall or Spring Semester Course)

Environmental Science is a course dedicated to understanding the interactions between earth's natural systems and the demands placed on them by the human population. Students will explore how we impact these systems and discover potential solutions for the resulting consequences of resource mismanagement. This course will cover many topics on an introductory level including basic principles of earth's environmental systems, population ecology, biodiversity and conservation, human population growth, urbanization, and sustainability. Concepts will be explored through inquiry-based laboratory exercises and field investigations.

Prerequisite: Chemistry



AP Physics 1: Grades 11 & 12 (Year Course)

AP Physics 1 is an algebra-based, introductory college-level physics course that includes a qualitative and quantitative approach to physics. Students build their understanding of physical models as they explore and solve problems in the following content areas: kinematics, translational dynamics, work & energy, linear momentum, torque & rotational dynamics, energy & momentum of rotating systems, and oscillations. This course requires that 25% of the instructional time be spent on hands-on laboratory work, with an emphasis on guided and inquiry-based investigations that provide students with opportunities to apply the science practices. **Prerequisites:** Completion of Physics I or Honors Physics I and enrolled in Calculus or AP Calculus (AB or BC).

Engineering Disciplines: Grades 10, 11 and 12 (Fall Semester of Odd Years or Spring Semester of Even Years)

This course will introduce students to different branches of engineering. Students will learn about engineering and technology careers and what skills and knowledge needed for success in these fields. A variety of hands-on activities and engineering projects will be completed.

Engineering Principles: Grades 10, 11, & 12 ((Fall Semester of Even Years or Spring Semester of Odd Years)

This course exposes students to the entire engineering process, which includes the design process, research and analysis, teamwork, communication methods, technical documentation, and engineering standards. A variety of engineering projects will be completed.

**Mathematics****Geometry: Grades 9 & 10 (Year Course)**

Geometry emphasizes visualizing and understanding Euclidean geometric properties and mathematical relationships, making, and verifying conjectures, and establishing connections between geometric and algebraic properties. After an introduction to logic and reasoning, students develop a thorough foundation in proof writing using theorems and postulates. Students apply their proving and problem-solving skills to the concepts of measurement, congruence, proportionality, and similarity. Exploration of geometric properties is completed with a study of right triangle trigonometry, properties of circles, and an introduction to measurement of two and three-dimensional shapes.

Algebra II: Grades 9, 10, & 11 (Year Course)

Algebra II covers the real and complex numbers emphasizing the development, understanding, and practical applications of algebraic expressions, equations, relations, functions, and inequalities. Focus is placed on the graphical, numerical, and algebraic analysis of algebraic and transcendental functions. Geometry concepts are integrated into the course. In addition, the course includes an introduction to conics, matrices, and trigonometry.

Algebra II Honors: Grades 9, 10, & 11 (Year Course)

Algebra II Honors incorporates challenging problems that are at the mastery level. The course covers the real and complex numbers emphasizing the development, understanding, and practical applications of algebraic expressions, equations, relations, functions, and inequalities. Focus is placed on the graphical, numerical, and algebraic analysis of algebraic and transcendental functions. Geometry concepts are integrated into the course. In addition, the course includes an introduction to linear programming, conics, matrices, and trigonometry. The course moves at a fast pace to allow for exploration of these topics in greater depth. **Prerequisite:** A yearly average of 90 or higher in Geometry.

Precalculus: Grades 10, 11, & 12 (Year Course)

Precalculus prepares students for senior-level calculus. It includes a study of polynomial, rational, exponential, and logarithmic functions, and foundational concepts such as rate-of-change. It also includes a study of trigonometric functions, identities, and applications.

AP Precalculus: Grades 10, 11, & 12 (Year Course)

AP Precalculus centers on functions modeling dynamic phenomena. This research-based exploration of functions is designed to prepare students for college-level calculus and provide grounding for other mathematics and science courses. In this course, students study a broad spectrum of function types that are foundational for careers in mathematics, physics, biology, health science, social science, and data science. **Prerequisites:** A yearly average of 95 or higher in Algebra II or a 90 or higher in Algebra II Honors.

College Algebra and Trigonometry: Grades 11 & 12 (Year Course)

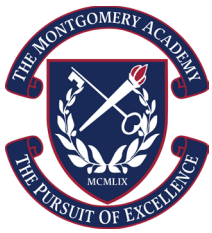
College Algebra and Trigonometry provides the necessary foundation for success in Calculus, develops logical thinking skills, and enhances analytic skills through problem solving. Topics include graphical and analytical analysis of fundamental algebraic concepts, including relations and functions, inequalities, polynomial, rational, transcendental, and trigonometric functions. Also included are complex numbers, trigonometric identities and equations. **Prerequisite:** Math Department recommendation.

Statistics: Grade 12 (Year Course)

Statistics introduces students to the major concepts and tools for collecting, organizing, analyzing, and drawing conclusions from data. Students learn basic statistical vocabulary and techniques using formulae and functions in spreadsheets to systematically solve common statistics problems.

AP Statistics: Grade 12 (Year Course)

AP Statistics is an introductory college-level statistics course that introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students cultivate their understanding of statistics using technology, investigations, problem solving, and writing as they explore concepts like variation and distribution; patterns and uncertainty; and data-based predictions, decisions, and conclusions.



Calculus: Grades 11 & 12 (Year Course)

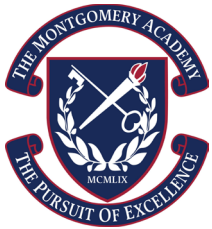
This course is a survey of basic differentiation and integration of algebraic and transcendental functions and respective applications by utilizing previously learned mathematics to develop new concepts. The course emphasizes a multi-representational approach to Calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The course covers limits, derivatives, integrals, approximation, and applications and modeling using properties, algebra, and graphs of elementary functions to develop the concepts. These functions include linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse trigonometric, and piecewise. **Prerequisite:** Precalculus

AP Calculus AB: Grades 11 & 12 (Year Course)

AP Calculus AB emphasizes a multi-representational approach to Calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The themes of AP Calculus AB, limits, derivatives, integrals, approximation, and applications and modeling are developed using properties, algebra, and graphs of elementary functions. **Prerequisites:** Strong foundation in Algebra, Geometry, and Precalculus and a yearly average of 95 or higher in Precalculus or a 90 or higher in AP Precalculus.

AP Calculus BC: Grade 12 (Year Course)

AP Calculus BC covers the differential and integral Calculus of single variable functions and includes extended applications to parametric, polar, and vector-valued functions as well as units on sequences and series, numerical solutions to differential equations, indeterminate form limits and improper integrals. **Prerequisites:** 3 or higher on the AP Calculus AB exam.



World Language

French

French I: Grades 8, 9, 10, & 12 (Year Course)

French I serves as an introduction to the French language and culture through the four essential skills of language learning: listening, speaking, reading and writing. Activities in class focus on these skills as students build vocabulary and learn basic grammatical structures. We will practice reading comprehension through short readings in various mediums including but not limited to newspaper articles, songs, and short stories. Written activities to expand vocabulary and practice new structures using these various forms will assist in daily practice. Students will spend a considerable amount of time using French in a communicative setting through various oral activities and with the use of authentic resources that will emphasize practical usage of the French language. Students will also begin an exploration of French and Francophone culture around the world to further emphasize the important role the French language plays in contemporary global societies. The goal for French I students is to reach a middle to high novice level in all four

skills while gaining a deeper appreciation and understanding of the importance of learning a second language. Diverse activities both inside and outside of class will complement our exploration of other cultures as well as assist in building confidence communicating in the target language. ***In order to be eligible for the AP French Language course, students must begin with French 1A in Grade 7 or French 1 in Grade 8.***

French II: Grades 9, 10, & 11 (Year Course)

French II is a continuation of the structures studied in French I with a continued emphasis on the four skills of language learning: listening, reading, writing, and speaking. In French II students will continue to perfect their communicative abilities in the target language as well as explore cultural components of this diverse language. The goal for all students in French II is to reach low to middle intermediate proficiency in all four skills as well as a deeper understanding of the important roles French plays in our global community. Students will build skills to interact more confidently in the target language and explore a variety of tenses in the past, present, and future. Students will learn a large amount of vocabulary included but not limited to academic life, family and friends, hobbies and extracurricular activities, and wellness. Communication will take place in all covered verb tenses about relevant cultural topics in the French and Francophone world. A variety of assignments and projects will be given throughout the year, and students will leave their comfort zones in order to gain confidence communicating in the target language through these activities and daily classroom participation. French is not a spectator sport! In order to succeed, students must take risks and actively engage themselves in every class period. French II is an extremely challenging level. Students will be exposed to large amounts of grammar and vocabulary, among other topics. Students are expected to maintain a strong work ethic and devote appropriate time towards homework, class assignments and projects, as well as daily participation and engagement. Personal organization and strong study skills are mandatory.



French III: Grades 10, 11, & 12 (Year Course)

French III students will review concepts studied in French II as well as build on these structures to explore more advanced concepts including, but not limited to, grammar and culture. We will use a variety of resources including film and music to experience authentic use of the French language and explore the French and Francophone world, as well as build proficiencies in reading, writing, speaking, and listening skills in the target language. French III students will narrate and describe events in the present, past, and future tenses and will practice skills to help maintain conversations in French with native speakers. Students will also explore current event issues, pop culture, storytelling, and many other diverse mediums relating to France and the Francophone world. A variety of assignments and projects will be assigned to compliment these mediums that will allow students to continually improve upon their understanding and knowledge of the target language and cultures. The goal for French III students is to reach a low-intermediate to high-intermediate level of French proficiency, including a greater appreciation and understanding of the diverse cultures included in this language.

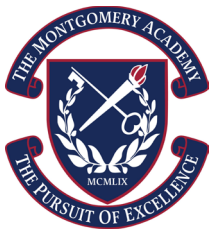
French IV: Grades 11 & 12 (Year Course)

French IV students will explore various themes to help nourish higher-level conversational skills in the target language. Students will review previously studied grammar topics but will move away from a perfection-based outlook of the target

language and instead shift towards fluidity of the French language to express ideas, opinions, and other topics. Films, literature, current events, and other mediums will help students open dialogues to enrich the classroom dynamic and improve communication and understanding of the French language and the diverse cultures that share French as a common language. Reading, writing, listening, and speaking competencies of all students will be explored and challenged, and students will be expected to communicate in and remain in the target language for the duration of each class period. The art of conversation will certainly be at the forefront of this course and students will be encouraged to share their experiences to enrich conversations and dialogues with classmates and the instructor. The goal for French IV students is to reach an advanced level of communication in the target language that allows students to speak confidently, knowing they can successfully convey and exchange ideas and opinions with native speakers on a wide variety of topics.

AP French Language and Culture: Grade 12 (Year Course)

The AP French Language and Culture course emphasizes communication (understanding and being understood by others) by applying interpersonal, interpretive, and presentational skills in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP French Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught exclusively in French. The AP French Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions). **Prerequisites:** An average of 90 or higher in French IV and the instructor's recommendation.



Latin

Latin I: Grades 8, 9, 10, & 12 (Year Course)

Latin I is the first year of Latin. This course will serve as an introduction to the Latin language and the culture of ancient Rome. Students learn basic language structures and essential elements of Latin pronunciation in order to be able to read simple passages in Latin. The relationship of English to Latin is emphasized in vocabulary building, word derivation, and meanings of prefixes and suffixes. Language structures and syntax are developed through the study of literary passages. The geography, history, government, and culture of the Roman Empire are studied. Students will study from the textbook *Ecce Romani I* and will cover Chapters 1-23.

Latin II: Grades 9 & 10 (Year Course)

This course will serve as a continuation of the study of the Latin language and the culture of ancient Rome. Students learn additional vocabulary and more complex language structures in order to read more challenging passages in Latin. Language structures and syntax are developed through the study of literary passages. Students continue to explore Roman culture as they study Roman life and Rome's contributions to our civilization. Students examine the following cultural themes

through readings: food, education, entertainment, social structures, heroic cycle, and the history of the Roman Republic. Students will study from the textbooks *Ecce Romani I* and *II* and will cover Chapters 24-41.

Latin III: Grades 10, 11, & 12 (Year Course)

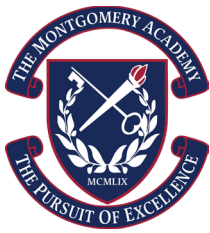
In this course students continue to develop and refine their reading skills through the study of Latin literature. Additional vocabulary and more complex language structures and syntax are emphasized in order to be able to transition students to read the writings of Roman prose authors and poets. Through translation and interpretation, students gain a greater understanding of the history of the Roman Empire and the foundation of Western government and civilization. Students study from the textbook *Ecce Romani II* (Chapters 42-54) and begin the textbook *Ecce Romani III*.

Latin IV: Grades 10, 11, & 12 (Year Course)

In this course students continue to develop and refine their reading skills through the study of Latin literature. Additional vocabulary and more complex language structures and syntax are emphasized in order to be able to transition students to read the writings of Roman prose authors and poets. Through translation and interpretation, students gain a greater understanding of the history of the Roman Empire and the foundation of Western government and civilization. Students finish the textbook *Ecce Romani III*.

AP Latin: Grades 11 & 12 (Year Course)

This course focuses on the in-depth study of selections from two of the greatest works in Latin literature: Vergil's *Aeneid* and Caesar's *Gallic War*. The course requires students to prepare and translate the readings and place these texts in a meaningful context, which helps develop critical, historical, and literary sensitivities. Throughout the course, students consider themes in the context of ancient literature and bring these works to life through classroom discussions, debates, and presentations. Additional English readings from both of these works help place the Latin readings in a significant context. **Prerequisites:** An average of 90 or higher in Latin IV and the instructor's recommendation.



Spanish

Spanish I: Grades 9, 10, & 12 (Year Course)

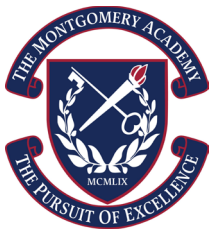
Spanish I is a course that builds a strong foundation in the Spanish language and Hispanic cultures. Students develop listening, speaking, reading, and writing skills through everyday communication. The course covers basic vocabulary, pronunciation, and essential grammar, progressing to more complex structures such as reflexive verbs and the pretérito tense to talk about past events. Instruction includes thematic units on food, travel, daily routines, school, and celebrations, while also exploring cultural traditions and customs of Spanish-speaking countries. Interactive activities, conversations, and cultural projects support language development and cultural awareness.

Spanish II: Grades 9, 10, & 11 (Year Course)

Spanish II strengthens the students' language skills, expanding oral and written expression. Level II bridges the introductory programs of Level I and intermediate Level III. Course content expands and refines the basic structures of spoken and written Spanish acquired previously, focusing on the present and past tenses as well as the present subjunctive. Integrated activities develop reading, writing, listening, and speaking skills to foster students' proficiency across three communicative modes: Interpersonal (interactive communication), Interpretive (receptive communication), and Presentational (productive communication). The five major goals of foreign language learning are Communication, Cultures, Connections, Comparisons, and Communities, which anchor the development and expansion of all three communicative modes. Spanish II continues to use the Descubre textbook series as well as the online platform that accompanies it. In addition to vocabulary and grammar concepts, students also increase their knowledge of the culture of the Spanish-speaking world with special emphasis on art, music, history, and literature.

Spanish II Honors: Grades 9, 10, & 11 (Year Course)

This course bridges the basic Spanish I and intermediate Level Spanish III Honors. It is oriented to the students who performed at the top of their classes in Level I and are ready to accept an accelerated course of studies at Level II with greater expectations in speaking and writing. Course content expands and refines the basic structures of spoken and written Spanish acquired previously. Integrated activities develop reading, writing, listening, and speaking skills to foster the students' proficiency across three communicative modes: Interpersonal (interactive communication), Interpretive (receptive communication) and Presentational (productive communication). The five major goals of foreign language learning are Communication, Cultures, Connections, Comparisons, and Communities, which anchor the development and expansion of all three communicative modes. Spanish II Honors continues to use the Descubre textbook series as well as the online platform that accompanies it. Daily use of Spanish in the classroom helps develop students' interactive and productive communication. In addition to vocabulary and grammar concepts, students also increase their knowledge of the culture of the Spanish-speaking world with special emphasis on art, music, history, and literature. **Prerequisites:** An average of 95 or higher in either Spanish IB or Spanish I and the instructor's recommendation.



Spanish III: Grades 10, 11, & 12 (Year Course)

This course provides the intermediate level high school student with review and expansion of the structures of spoken and written Spanish learned in Levels I and II. This course enhances students' command of the language, as well as deepens understanding of the Spanish-speaking peoples and their cultures. Daily exposure to Spanish in the classroom helps develop effective expression in the language. The four distinct areas of reading, writing, listening, and speaking are integrated in different activities to foster the students' proficiency across three communicative modes: Interpersonal (interactive communication), Interpretive (receptive communication) and Presentational (productive communication). The five major goals of foreign language learning are Communication, Cultures, Connections, Comparisons, and Communities, which anchor development and expansion of all three communicative modes. Spanish III continues to use the Descubre textbook series as well as the online platform that accompanies it. Students personalize their understanding of written and auditory selections that contain more complex language concepts reinforcing culture, grammatical structures, and vocabulary. Students also learn communicative strategies that allow them to function in real-life situations.

Spanish III Honors: Grades 10, 11, & 12 (Year Course)

This course provides the intermediate level high school student with in-depth review and expansion of the structures of spoken and written Spanish. The primary purpose of this Level III section is to prepare students interested in pursuing AP Spanish Language and Culture the following year. The four distinct areas of reading, writing, listening and speaking will be integrated in different activities to foster students' proficiency across three communicative modes: Interpersonal (interactive communication), Interpretive (receptive communication) and Presentational (productive communication). The five major goals of foreign language learning are Communication, Cultures, Connections, Comparisons and Communities, which anchor development and expansion of all three communicative modes. Daily use of Spanish in the classroom will help develop the students' communication in all forms. At this level, strong verb conjugation, grammatical structure mastery, pronunciation refinement, and vocabulary expansion strengthen all three modes of communication. Spanish III Honors continues to use the Descubre textbook series as well as the online platform that accompanies it. In addition to vocabulary and grammar concepts, students also increase their knowledge of the culture of the Spanish-speaking world with special emphasis on art, music, history, and literature. **Prerequisites:** An unweighted average of 90 or higher in Spanish II Honors or a 95 or higher in Spanish II and the instructor's recommendation.

Spanish IV: Grades 11 & 12 (Year Course)

This course is intended to continue the development of the student's language skills with particular emphasis on providing communicative strategies for real life situations. Development of the four skills (reading, writing, listening, and speaking) will expand at a higher performance level. The reading selections at this level emphasize the cultures and the current demographics of the Spanish-speaking world. Students demonstrate an understanding of the material studied through speaking, writing, and listening activities. Spanish IV uses the Imagina textbook series as well as the online platform that accompanies it. In addition to vocabulary and a review of grammar concepts, students also increase their knowledge of the culture of the Spanish-speaking world with special emphasis on art, music, history, and literature.



AP Spanish Language and Culture: Grades 11 & 12 (Year Course)

This course prepares upper-level Spanish students to sit for the end-of-year College Board Examination. The instructor's near exclusive use of spoken and written Spanish in all facets of the course (and the requirement that students do the same) strengthens students' proficiency, integrating communicative skills through use of authentic materials and sources established by College Board directives in the AP Spanish Language & Culture Course Description. The four areas of reading, writing, listening, and speaking are integrated into different activities to foster proficiency across three communicative modes: Interpersonal (interactive communication), Interpretive (receptive communication) and Presentational (productive communication). The five major goals of foreign language learning are Communication, Cultures, Connections, Comparisons and Communities, which anchor development and expansion of all three communicative modes. The overall purpose of the course is to enhance students' language proficiency to function and communicate effectively in a cultural context other than their own. Daily classroom use of the Spanish language emphasizes grammatical structures, oral expression, and vocabulary expansion that prepare the students for the AP tasks of reading, writing, speaking, listening, and analyzing culture. **Prerequisites:** An unweighted average of 90 or higher in Spanish III Honors or a 95 or higher in Spanish III or Spanish IV and the instructor's recommendation.



Health & Physical Education

Health & Physical Education: Grade 9 (Year Course)

Health & Physical Education is a required course for all ninth grade students in the Upper School. The Upper School Physical Education curriculum is based on improving the students fitness level and teaching students to live a healthy lifestyle after high school. The Upper School program includes activities that develop cardiovascular and respiratory endurance, muscular strength and endurance, flexibility, and agility. Weight training, core training, circuit training, cross country running, cross training, stretching, and various forms of aerobics are included as activities to build on each students health-related fitness. Health-related topics include; nutrition, basic exercise standards and guidelines, monitoring cardiorespiratory exercise, medical considerations of exercise, psychological benefits of fitness and leadership skills. Methods and measuring techniques of determining and improving fitness levels are taught to enable students to design their own fitness program in later years. In addition, the rules, skills, and strategies of major and minor competitive and lifetime sports are taught and practiced. Physical Education uniforms are required.

Health & Physical Education Elective

Health & Physical Education: Lifetime Fitness: Grades 10, 11, & 12 (Fall or Spring Semester)

This is an elective course which will continue with and build upon what students learned in previous physical education classes and go into more depth in lifetime fitness concepts. Those concepts will include muscular strength and endurance, core strength and movement activities in which students can continue to develop cardiovascular fitness and learn how to develop a lifetime fitness plan. It will also emphasize the joy of fitness. There would be a separate class offered for boys and girls in the 10th-12th grades. This elective must be taken as a 6th or 7th course in the students' semester schedule.



The Arts

Visual Arts Electives

Art: Color and Design: Grades 9 & 10 (Spring Semester)

Through a sustained experience in color media, this foundational course reinforces basic design principles and their application on the two-dimensional surface. Through a variety of projects, students in this studio course will investigate the effective use of color schemes and the functions and properties of the formal elements (line, value, form, etc.) and their organization through the use of relational schemes (repetition, emphasis, contrast, etc.).

Art: Painting I: Grades 9, 10, 11, & 12 (Fall Semester)

This foundational level course engages students through a series of guided experiences emphasizing color, composition, content, and contrast, as they hone technical skills and experiment with a variety of wet media (watercolor, acrylic, gouache, etc). Students will explore objective and non-objective content derived from observation, original photography, imagination, and abstracted imagery.

Art: Painting II: Grades 10, 11, & 12 (Spring Semester)

This intermediate level course builds upon an understanding of basic color theory and design concepts. Students will explore painting more complex designs and compositions through a variety of contemporary and traditional processes, experimenting with watercolors, gouache, acrylic and oil paints. The keeping of a visual journal will also provide opportunities for concept development, observational, and experimental imaging. **Prerequisite:** Painting I

Art: Mixed Media: Grades 9, 10, 11 & 12 (Fall or Spring Semester)

In this 2D/3D design course, students will explore mixed media processes which combine painting, drawing, printmaking, fibers, collage, assemblage, and altered art techniques. Students will apply stamping, stenciling, transfer techniques, altered surfaces, handmade paper processes and many more fun applications of mixed media. Through a variety of contemporary and traditional processes, students will reinforce their understanding of the principles of design, especially pattern, repetition, and spatial arrangement. The creation and keeping of a visual journal will also provide opportunities for building on drawing and design skills, concept development, experimental imaging, and inclusion of creative writings. Students will also be encouraged to incorporate and build on the personal ideas and imagery created from their previous art experiences.

Art: Ceramics I: Grades 10, 11, & 12 (Fall Semester)

This introductory course explores a variety of traditional and contemporary applications in the production of functional, sculptural, and decorative works in clay. Through assignments that focus on a variety of hand-building techniques, students will reinforce their understanding of the elements and principles of 3D design. Students will develop skills in glazing and firing, and work with a variety of tools to create surface decorations.



Art: Ceramics II: Grades 10, 11, & 12 (Spring Semester)

This course allows students to continue their experience and expand their technical ability by learning to use a pottery wheel. Students will apply visual problem-solving skills and broaden their design vocabulary as they explore form and space on a deeper level. Students will apply their sculpting, carving, and surface decoration skills acquired in Ceramics I to wheel thrown forms. Traditional and contemporary applications will be explored with an emphasis on originality, craftsmanship, experimentation, and concept development. **Prerequisite:** Ceramics I **Each section must be limited to 8 students due to the amount of wheels available.

Art: Sculpture: Grades 10 & 11 (Spring Semester)

This course provides students with an introductory experience in three-dimensional design. Through individual projects, group collaborations, and on-site installations, students will experience a variety of processes and materials which emphasize the exploration of the elements of design and their relationship to the principles of form and space. Students can expect to work with a variety of materials such as: cardboard, glass, textiles, wood and metal. Traditional and contemporary applications will be explored as students gain an understanding and appreciation of the work of contemporary and traditional sculptors.

Art: Contemporary Drawing: Grades 10, 11, & 12 (Fall Semester)

This intermediate level course uses traditional and contemporary methods that allow students to develop their untapped drawing abilities or enhance already existing skills. Students explore drawing both from life and from original photography as references, with focus on drawing what is seen as it is viewed, from the angle it is viewed. An important element of this course is daily practice in a visual journal that provides opportunities for concept development and honed observational skills.

Art: Advanced Portfolio: Grades 10 & 11 (Spring Semester)

This course is required for students who plan to take AP Studio Art the following Fall, but open to any juniors who possess a genuine desire to further explore their artistic gifts. It is designed to help students build a well-rounded portfolio that reflects their understanding of a broad range of drawing and design issues. (It would be rare for a sophomore to take this unless she or he is planning to complete the AP Studio Art Portfolio in their junior year.) **Prerequisites:** portfolio review and teacher approval.

Art: AP Studio Art: Grades 11 & 12 (Year Course)

Students who enroll in this class have expressed a strong desire to engage in the creative process and have exhibited the work ethic and creative drive necessary for the successful completion of the AP portfolio. The student's originality, technical skill, and artistic voice is expressed through the development of a two-part portfolio that culminates as their Sustained Investigation (an expression of practice, revision, and experimentation) and their Selected Works that demonstrate a synthesis between inquiry concept, visual imagery, and use of materials. Students will choose one of three following portfolios: 2D Design (including Photography and/or digital work), Drawing, or 3D Design. Students who fulfill the requirements of AP Studio Art demonstrate their ability to work conceptually, technically, and creatively on a



college course level. Students are required to submit their completed portfolio in the spring. **Prerequisite:** Advanced Portfolio (Previous Spring) or equivalent. Teacher Recommendation.

Art: AP Art History: Grade 12 (Year Course)

AP Art History provides the same benefits as those offered by an introductory college course in art history. It gives an understanding and enjoyment of architecture, sculpture, painting, and other art forms within a global historical and cultural context. Students examine major forms of artistic expression of the past and the present from a variety of cultures. No prior experience in art history is necessary. Students who have excelled in the humanities are encouraged to enroll. Students will be required to take the AP exam in the spring. **Prerequisite: Teacher approval.**

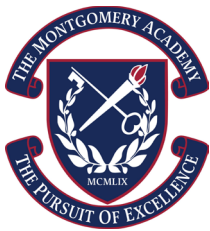
Drama Electives

Drama: Acting: Grades 9, 10, 11, & 12 (Fall Semester)

This class is a hands-on approach to the study of acting. Suitable for all experience levels, this course will emphasize the fundamental tools of the actor, and will focus on characterization, improv games, and the analysis of a stage play. This course combines individual and group exercises with assignments performed in class.

Drama: Film Analysis: Grades 9, 10, 11, & 12 (Spring Semester)

Let's look at some movies. Students in Film Analysis will analyze films viewed in class while learning about the production behind them, such as cinematography, editing, sound, and performance. With movies spanning decades and genres, students will learn the history of the art of cinema and the methods that filmmakers employ to tell stories effectively.



Music Electives

Music: Upper School Chorus: Grades 9, 10, 11, & 12 (Fall/Spring Semester or Year Course)

In Upper School Chorus, students sing a variety of music from the standard choral repertoire. Students will improve vocal technique and music literacy through their performance of pieces in different languages and from different musical periods. The Upper School Chorus consistently receives “Superior” ratings at District, State and National Festivals and have placed first in their division at National competitions across the US. In addition, choruses at the Montgomery Academy have been invited to perform at State, Regional and National Conventions of The American Choral Directors Association and The National Association for Music Education. They have also been featured with the New England Symphonic Orchestra at Carnegie Hall and have had successful tours in South Carolina, Louisiana, Georgia, Tennessee, Texas, New York, California, Florida, Washington, and Alabama.

Music: Jazz, Pop, and Rock: Grades 9, 10, 11, & 12 (Fall/Spring Semester)

A survey of current popular and classical musical styles and genres in the U.S. Topics include rock, folk, jazz, blues, gospel, country and western, musical theatre, film music, music of and beyond the Americas, and Western European classical music. Emphasis is placed on the sequential development of substantive listening and descriptive skills.

Music: Music Theory: Grades 10, 11, & 12 (Fall Semester)

Music Theory is a course designed to focus on the organization of musical elements: pitch, rhythm, melody, harmony, etc. Students will learn various notational techniques, sight-reading systems, and compositional techniques. Upon completion of this course, students should have the ability to compose simple melodies with accompaniment, arrange familiar pieces, and play simple songs on the piano. Music Theory should provide the foundation to move onto AP Music Theory, if desired; continuation to AP is not required.

Speech & Debate Elective**Speech & Debate: Grades 9, 10, 11, & 12 (Fall Semester or Year Course)**

Speech & Debate provides students the opportunity to develop their ability to stand before a group of people and make a presentation, which manifests itself through competition in debate, speech, and/or interpretation events. Lincoln-Douglas Debate involves one student debating an issue that revolves around propositions of value. Public Forum Debate involves two students debating a topic dealing with current events. Speech Events have students developing both prepared and limited prep speeches while the Interpretation Events have students performing selections from published printed novels, short stories, plays, and/or poetry. Students are graded on participation and effort through involvement in competitive speech and debate tournaments. As a member of the National Speech & Debate Association, The Montgomery Academy Speech & Debate Team has traveled to tournaments in 45 states and has qualified students to the National Tournament for 33 consecutive years including four Finalists and one National Champion. At the state level, MA students have won a combined 182 Individual State Titles and 18 Team State Championships since 1993.



Technology

Technology Electives

Technology: Intro to Technology: Grades 9, 10, 11, & 12 (Fall or Spring Semester)

Intro to Technology helps students develop basic computer skills and familiarity with applications needed across their education and into a career. Topics include: word processing, spreadsheets, presentations, website design, and app creation. These topics will be based in a variety of important contexts such as personal finance, resumes, paper writing, and other skills necessary in today's world.

Technology: Robotics: Grades 9 & 10 (Fall Semester)

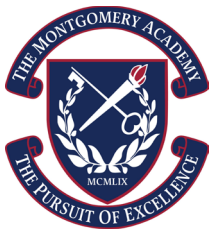
Robotics is a semester course focusing on all aspects of engineering, problem-solving, and design. Robotics introduces working with computer-controlled devices, using the engineering design process to create prototypes and test, analyze, and improve designs. The focus is on basic robot construction and programming for robotic control. This is a project-based environment that requires students to build prototypes or use software to test designs. Students develop critical thinking and communication skills by analyzing and presenting results in the classroom and competitions. Students in robotics will be required to compete in one competition.

Technology: Advanced Robotics: Grades 9, 10, 11, & 12 (Spring Semester)

Advanced Robotics is a semester course focusing on building a robot as a team and competing in VEX Robotics Competition. Through participation in Advanced Robotics, students learn to analyze and solve problems utilizing the Engineering Design Process, which helps them develop technological literacy skills. It is these skills that the industry seeks in its workforce. **Prerequisite:** 90 or higher in Robotics

Technology: AP Computer Science Principles: Grades 10, 11, & 12 (Year Course)

The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, they are introduced to python programming language and learn computational tools to analyze and study data and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems and will discuss and write about the impacts these solutions could have on their community, society, and the world. **Prerequisite:** Algebra I



Technology: AP Computer Science A: Grades 11 & 12 (Year Course)

AP Computer Science A is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem-solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities. Students signed up for AP CSA will be asked to complete a unit of programming independently during the summer before school begins. **Prerequisites:** AP Computer Science Principles and Algebra II

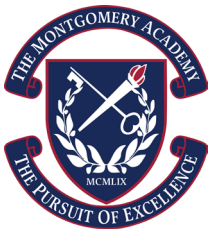


Other Electives

Yearbook: Grades 11 & 12 (Year Course)

Yearbook students begin the course by learning the basic terminology of yearbook design and the operation of the Yearbook 360 design software. They then proceed to discuss and craft a yearbook theme, palette, and template. After development of these skills, students work independently with their section editors. Grades are based on timely and correct submission of page design and/or successful execution of photography and reporting tasks, along with in-class exercises. The class is capped at 15 students as there is simply not enough work on a yearbook of this size to accommodate more students. Registration for Yearbook is through PowerSchool; students interested in being considered for one of the 5 editor spots must also complete a supplemental application. Enrollment as a reporter or designer is handled in order of course request; in the event of multiple simultaneous requests, preference will be given to students who have previous yearbook/photography experience.

Study Hall: Grades 9, 10, 11, & 12 (Fall/Spring or Year Course)





THE MONTGOMERY ACADEMY

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