

2018/19

COURSE CATALOG

BY SUBJECT



MileStone Academy

Empowering Students with Diverse Learning Styles



MileStone Academy's Approach to Instruction

To bring our curriculum to life for students, courses and units of study are fashioned around the work of Grant Wiggins and Jay McTighe and are aimed at the unfolding of the important ideas at the core of each subject. These “essential and unit questions” cannot be answered in one sentence, rather they are intentionally multilayered and complex to reveal the richness of the subject being studied. These *essential questions* are characterized by:

Essential Questions	Unit Questions
Getting to the heart of field of study	Provide subject/topic specific doorways to essential questions
Recur naturally throughout one’s learning and in the history of the field	Have no one obvious “right” answer
Raise other important questions	Are deliberately framed to provoke and sustain student interest

Success for the student with learning differences requires a focus on individual achievement, individual progress, and individual learning. MileStone Academy students succeed because of accommodations like the following:

- Setting specific short and long-term goals, and providing regular feedback on progress toward goals
- Breaking up tasks into smaller parts
- Using tactile and kinesthetic learning methods and hands-on projects
- Setting realistic expectations that build over time
- Tailoring assignments and homework to specific student learning needs
- Implementing multi-sensory approaches to learning
- Teaching self-monitoring strategies
- Directly teaching and reinforcing organizational strategies
- Capitalizing on adaptive technology when needed
- Assessing students orally in multiple ways
- Using targeted assessments to determine student needs
- Allowing extended time on tests and projects as needed
- Collaborative team work
- -Integrated language skills throughout the program
- Research validated programs
- Challenging higher order thinking skills
- Establishment of background information

LITERATURE

Philosophy:

The reading program at MileStone Academy aims to develop our students' appreciation for the various genres of literature. Individualized instruction assists students in cultivating strategies that aide them as they approach reading.

Through the study of the forms and elements of fiction, MileStone Academy students engage with literature to understand the author's intent and message and to glean how literature reflects our experiences, those of others, and those of the larger community. The ultimate goal is to instill in students an appreciation and understanding of literature.

Each course of study has been designed to enhance the student's critical reading skills in fiction and non-fiction texts and to increase proficiency in written and oral communication.

English is a required course for all four years at MileStone Academy. Students will attend their English course daily for the entirety of the academic year.

For students requiring interventions MileStone Academy may use:

- The **Orton Gillingham** program which addresses critical reading and writing deficiencies. It is designed to foster independent strategies that students can use in all content area classes. Students learn comprehension, paraphrasing, text marking, inferential thinking and learning strategies. They work on their ability to develop essays and focus on spelling and grammar development. Students learn how to think in a critical manner to analyze text, form opinions and grow as a reader and as a learner.
- Wilson Reading System is a structured literacy program based on phonological coding research and Orton Gillingham principals, The Wilson Reading System directly and systematically teaches the structure of the English language. Through the program, students learn fluent decoding and encoding skills to the level of mastery.

English 1

English 9 is an introductory course to literature and non-fiction. Critical thinking and composition skills are developed through close reading; searching for, locating, and evaluating information effectively; narrative and analytical writing; acquisition of new vocabulary; grammar, and usage. Students learn in an interactive environment that includes collaboration, discussion and presentation. Students learn comprehension, paraphrasing, text marking, and inferential thinking and learning strategies.

Writing 1

Course Description: During their time in this course students work on their ability to develop essays, focusing on spelling and grammar development. Students learn how to think in a critical manner in order to analyze text, form opinions and grow as a reader and as a learner. It is a rich mix of full-length essays, a research paper, paragraph/sentence structure, vocabulary, and grammar aimed at helping students become more developed writers and write with a greater sense of enjoyment and confidence. Not only will students be required to conduct research on a variety of topics, they will learn to



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demonstrate how to carefully revise/edit drafts of persuasive, expository, narrative, descriptive, and creative pieces.

English 2

Course Description: English 10 continues and expands on the skills learned in English 9. The English 10 curriculum reinforces, sustains, and further develops necessary skills to achieve academic success in higher education. This course of study has been developed to include critical thinking skills. In this course, students practice composition (e.g., argumentative and explanatory), critical thinking, and speaking skills. A variety of genres are taught including poetry, short stories, drama, fiction, non-fiction, and novels. Students will utilize digital media to develop alternative mediums for communication. Selections are drawn from numerous literary genres: novels, short stories, poetry, and drama.

Writing 2

Course Description: Students will build a solid foundation of knowledge, skills, and strategies that will be refined, applied, and extended as students engage in more complex ideas and tasks. They will demonstrate a grade appropriate command of conventions of Standard English, grammar and spelling. Further, students will analyze multiple interpretations of a story, drama, or poem. The use of textual evidence will be stressed as well as the ability to analyze how an author's point of view can impact and relate to the elements of a story. This will be demonstrated by having students construct a rich assortment of full-length essays, a research paper, paragraph/sentence structure, vocabulary, and grammar aimed at helping students become more thorough writers and write with a greater sense of enjoyment and confidence. Students will be required to conduct research on various topics and write a number of different pieces, including carefully revised drafts of persuasive, expository, narrative, descriptive, and creative work.

English 3

Course Description: In English 11, students become engaged with both traditional and contemporary works from American literature. Students are exposed to novels, plays, short stories, essays, poetry, as well as non-fiction. Writing skills are practiced to improve and perfect the thesis statement and other skills required to successfully complete a variety of writing tasks. In English 11, literature is examined as a reflection of the human condition.

Writing 3

Course Description: Writing 11 will require students to write for a variety of purposes with a sharp, distinct focus identifying topic, task and audience. Writing a variety of full-length essays, students will focus on paragraph/sentence structure, vocabulary, and grammar aimed at helping students become more thorough writers and teaching students to think critically, organize their thoughts and arguments, articulate viewpoints, and provide an effective analysis through writing. Using precise language to

manage the complexity of the topics, students will be required to compose a number of different writings. They will carefully revise drafts of persuasive, expository, narrative, descriptive, and creative work. Strong emphasis is placed on the style of writing required for the SAT writing section, along with multiple revisions of the college application essay.

English 4

Course Description: Designed for students who will be pursuing a college or university degree, English 12 focuses on synthesizing skills learned in English 9, 10, & 11. The emphasis is placed on critical thinking & analysis, discussion, and writing. Reading comprehension to understand an author's point of view, building writing skills through drafting and vocabulary development, and being exposed to more challenging reading from the classics through contemporary issues are covered. Through the study of various literary genres (novels, plays, short stories, and poetry), students build upon opportunities to highlight, sustain, and further acquire necessary skills to study literature.

Business English Communications

Course Description: This course focuses on teaching students to use technology to produce, publish and update individual or shared business-related writing projects using advanced searches, while successfully integrating information into the text. This will require them to hone their ability to selectively maintain the flow of an idea while avoiding plagiarism by utilizing a standard format for citation. Students will write with an awareness of the stylistic aspects of writing using various types of phrases and clauses to convey meaning, add variety and ultimately solicit interest. All of this will further enhance their organizational, time-management, note-taking, and writing skills. Writing college application essays will also be explored for students seeking entrance into post-secondary schools.

Humanities 1

Course Description: This course is designed to help students improve their reading skills and study strategies to effectively handle the demands of a variety high school courses. The student will learn to analyze text and apply appropriate study/learning strategies. A variety of topics will be explored throughout the humanities including outstanding contributions made in the areas of



MATHEMATICS

Philosophy:

MileStone Academy's math curriculum aims to provide students with the essential skills needed to succeed in both college and career settings. Students continue to explore the algebraic concepts examined in middle school. The curriculum ranges from unearthing aspects of business math and personal finance to creating and solving real-life equations, interpreting and constructing complex graphical representations of data, investigating principles of shapes in space, and the proper communication of data analysis.

To accommodate the different learning styles of our students, math teachers at MileStone Academy exploit a variety of instructional approaches and tools such as including manipulatives in algebra and geometry lessons, pictorial representations of concepts through the use of graphing calculators, various graphing and analysis programs on student laptops, and animations on the LCD projectors.

Students are required to complete 3 math courses over 4 years to graduate.

Math Concepts I

Course Description: This Course emphasizes the use of essential elements of mathematics while utilizing and reinforcing basic math skills. This course will include, but not be limited to such topics as mental math computation/estimation, fractions/percent/decimals, ratios/rates, algebra, geometry and consumer math.

Algebra I

Course Description: This course builds upon basic algebraic concepts introduced to students in 8th grade. In Algebra 1, students build on arithmetic skills and algebraic concepts learned in earlier grades. In this course, students will learn to solve linear equations, translate simple linear relationships into equations, analyze and graph linear equations, solve quadratic equations using quadratic formulas and factoring, and adding, subtracting, multiplying, and simplifying algebraic expressions. Assessment of student progress is based on written tests, quizzes and observation of manipulative use.

Consumer Math

Course Description: This course is an intensive review of the fundamentals of arithmetic. Students will explore mathematics' on-going role in society. A major focus of the course will be contemporary methods for analyzing data and interpreting statistics to make informed decisions. The course includes: operations of arithmetic with whole numbers, fractions, decimals; percent; estimation; equations and applied problems; introduction to the metric system, etc. Designed around applications of mathematics in an economic and business context, the major topics included are function, finance, rates of change, optimization, and linear programming. The content of the course is structured to incorporate tables, graphs and data sets collected from real-world situations. Calculators will be permitted for selected topics.

Geometry

Course Description: This course introduces and develops concepts related to the study of plane geometry. Geometry is the study of properties and relationships of points, lines, surfaces, solids, and higher dimensional analogs. A variety of topics are covered in this course including: parallelism, congruence, ratio and proportion, the Pythagorean Theorem, right triangle trigonometry, areas, circles, volumes, coordinate geometry, deductive proofs, perpendicularity, quadrilaterals, and similar polygons. Taught in an interactive environment, students will learn to use and will practice with a compass and straight edge. Assessment of student progress is based on projects, quizzes, and tests.

Algebra II

Course Description: Algebra II includes the study of more advanced algebraic topics than were covered in Algebra 1. Topics include: complex numbers, first and second degree equations, linear and quadratic relations and functions, graphing, matrices, exponential and logarithmic functions. Students will develop a deeper understanding of complex algebraic concepts through exercises built to teach test taking skills and critical thinking skills. They will learn to appreciate the real life application of math through the study of algebraic equations and how they apply to real life situations.

Trigonometry / Pre-Calculus

Using multi-sensory instruction, students enrolled in pre-calculus will survey topics frequently found in first semester college calculus including: limits, continuity, differentiation, and integrals. Elementary functions, trigonometric functions, and transcendental functions will be used in applications of each topic. Real-world, practical examples are incorporated throughout the course so that students gain experience in how pre-calculus topics are used in everyday life.



SOCIAL STUDIES

Philosophy:

MileStone Academy's social studies curriculum is intended to prepare students for successful societal participation and/or college entrance with a cohesive appreciation and understanding of how U.S. history, world history, geography, sociology, and civics impact our ever changing global society.

Throughout the curriculum, essential questions are woven into the subject matter, fostering critical thinking as well as conceptual understanding. These goals are achieved through direct teacher instruction, self-directed student projects, and collaborative activities.

The courses will include opportunities for students to showcase their new knowledge through debates, projects, presentations, short reflective papers, and other portfolio assignments.

Students are required to complete 3 social studies courses over the course of 4 years in order to graduate.

African American History

Course Description: This course considers human interaction from the 15th century through the Civil Rights movement. The students will study the trading of slaves amongst African tribes, the arrival of European explorers to the continent of Africa, the Triangular Slave Trade between Europe, Africa, and the Americas, the Atlantic Slave Trade between Africa and North America, the differences between Spain, French, and English slaves in North America, the Enlightenment's impact of slaves, the impact the Declaration of Independence and the Revolutionary War had on slavery in the United States, the Underground Railroad and its key players, the Civil War and Reconstruction, and the role African Americans played in World War II. The course will end with the fight for equality and civil rights. The primary objective of this course is to promote student growth in the basic skill areas of reading, writing, critical thinking, and research. They are also given continual opportunities to practice basic comprehension skills and map skills, as well as higher level thinking skills.

Political Science / Civics

Course Description: The political science course will concentrate on the government of the United States. A general overview of other types of governments will be given, as will an understanding of the thinkers of the Enlightenment and their effect on the framing of our Constitution and the writing of the Declaration of Independence. Civics is the study of the rights and duties of citizenship. Using primary source material, students will learn about U.S. history, branches and functions of government, the electoral process, U.S. Constitutional provisions, state government, local (county) governments, as well as the citizen's role in government. Instruction is given in an interactive, engaging environment.

US History I

American History comes alive in this course that covers the major political, social, economic, and cultural developments of the United States. Students learn about U.S. history from the country's founding through present day through interactive and multi-media instructional methods. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history. Native Americans, minorities, women, and representative biographies are also examined.

Modern World Studies

Course Description: This course considers human interaction from the Renaissance to modern day. The students will study revolutions around the world, colonization & imperialist empires, dictators & tyrants, terrorism & genocide, culminating with world globalization. The primary objective of this course is to promote student growth in the basic skill areas of reading, writing, critical thinking, and research. They are also given continual opportunities to practice basic comprehension skills and

Sociology

Course Description: In this course students will learn about the connections between individuals and society, culture and individual personality and personal choice and mass social change. All the information students learn will relate to one big idea; understanding the social world around them. The following three themes will be discussed

- Sociology is imaginative: Sociology offers a way of seeing the world that helps one understand their connection to society. It also helps one see how personal choices have a social context.
- Sociology is a science: Social scientist use scientific processes to test and examine ideas and concepts in sociology
- Sociology has multiple perspectives: Individuals view the world in different ways. Sociology resembles a conversation between people with varying points of view.



SCIENCE

Philosophy:

The science curriculum at MileStone Academy aims to impart to students vital scientific concepts and theories, as well as an understanding of how science impacts the lives of individuals. Students will master the use and application of the scientific method over their course of study. They will also acquire the knowledge necessary to conduct research using scientific problem-solving skills, as well as many other 21st century science related technological skills.

To accommodate different learning styles, MileStone Academy teachers will utilize visual aids, role playing, inquiry activities, hands-on multisensory projects, etc. Students will enjoy labs as they explore major themes in science such as the environment, biology, biochemistry, and biophysics. The goal is to enhance the understanding of the content material and reinforce the skill of documenting findings and analyzing data.

Students are required to complete 3 science courses over the course of 4 years to graduate.

Biology

Course Description: Biology is the study of life and living organisms. In this course, students will learn about the structure, function, growth, and vital processes of plant and animal life. A multitude of learning approaches will be used in teaching biological concepts including computer-based learning tools, hands-on experiments and group projects. Instruction is experientially oriented. Students examine the atomic basis for all life. More specifically, they study cells, photosynthesis, cellular respiration, mitosis, meiosis, genetics, DNA and proteins. Students will further develop the scientific skills such as that of writing a proper lab report and/or a scientific paper. Assessment of student progress is measured through tests, quizzes, projects, graded homework assignments and lab reports.

Biochemistry

Course Description: Biochemistry is the study of the composition and properties of matter. The interactions of molecules, atoms, understanding the Periodic Table of the Elements and other key concepts in the field of chemistry are taught in an interactive environment. Students will participate in hands-on learning by conducting experiments and working in groups on projects. The course unearths the basic concepts of chemistry, such as matter and its interaction on the microscopic level. Students will be expected to master the following topics: physical and chemical changes, the conservation of mass, the atomic structure, chemical reactions, chemical quantities, stoichiometry and thermochemistry.

Biophysics

Course Description: Students will examine the structures and functions of the cells, tissues, organs and organ systems of the human body. The course will introduce concepts such as the organization of the human body, characteristics and maintenance of life, anatomical terminology and tissue types. The systems of the body that are studied include the integumentary, muscular, skeletal, nervous, respiratory

and digestive. Students are expected to have mastered scientific thinking skills, application of the scientific method and writing scientific papers. Weekly quizzes, papers, labs, projects and tests will be used to assess student progress.

Environmental Science

Course Description: This course is laboratory-based science class emphasizing the function of the earth's systems. Emphasis is placed on human interactions with the Earth's geologic & environmental systems, predictability of a dynamic Earth, origin & evolution of the Earth's systems, geochemical cycles and energy within those systems. This course is designed to provide students with background knowledge about ecology and human impact on the environment. Through the study of the biosphere and the principles of ecology students learn about the relationships and interactions among organisms and their environment. Skills introduced and reinforced in this course are the use of a microscope, the proper writing of a lab report and scientific paper, and analytical thinking and problem solving using the scientific method.



BUISNESS & TECHNOLOGY EDUCATION

Philosophy:

Computers are a part of our everyday existence we believe we need to teach students how to use the computers and how to be safe while using the computer. Our classes in this department will teach the fundamentals of learning the keyboard, how to find legitimate resources for papers and projects and how to use various programs to create projects for other classes. Our teachers will emphasize internet safety and how to be a good digital citizen.

Webpage Design/Multimedia

This course is designed to educate students on the ever-changing digital world, as well as to provide hands-on experience with industry standard software and equipment. The curriculum covers a wide range of areas, so it appeals to a diverse group of students. Topics covered in Digital Media classes include graphic design, animation, audio production, video production, and web design.

Intro to Computers

In this introductory course, students will become familiar with the basic principles of a personal computer, including the internal hardware, the operating system, and software applications. Students will gain practice in using key applications such as word processors, spreadsheets, and presentation software, as well as understanding social and ethical issues around the Internet, information, and security.

Business Management

The world of business management offers an array of career opportunities unparalleled among income earning possibilities. Industries from mining to waste disposal have management-level positions in many companies. Business management requires a combination of skills and knowledge, coupled with good judgment and leadership qualities. There are several fundamental aspects of operating a business – whether you run your own small business or hold a management position in a national corporation – that a manager should be aware of. Our course takes you through some of the various requirements you may encounter while managing a business.

PHYSICAL EDUCATION & HEALTH

General Physical Education:

The course of Physical Education will focus on movement, eye-hand coordination, team building, fitness and nutrition. These goals will be accomplished through group exercise, discussion, and team sports. We will be exercising and playing selected sports throughout the year.

Health and Wellness:

Knowledge of how to lead a healthy life benefits everyone. In this course, students learn to make good choices in the areas of physical, mental, emotional, and social fitness. Nutrition, disease, medicine, and exercise are addressed along with goal setting and other skills to use in making good life-style choices.

ELECTIVES

Philosophy:

Electives allow students to explore their interests, learn a new skill or hobby, and immerse themselves in a variety of courses taught in a challenging, yet supportive environment. Most electives also offer an opportunity for students to share their talents with their peers, in the form of visual arts, finance, singing, acting, journalism, etc.

Elective course offerings at MileStone at various grades may include some of the following:

Art	Personal Finance
Drama	Economics
Film Study	Technology
Journalism	Accounting
Business & Consumer Law	Political Science
Music	Sociology
Philosophy	Personal Finance
Career Development	Foreign Language