

PROGRAM OF STUDIES



MINUTEMAN
HIGH SCHOOL REVOLUTIONIZED

Minuteman Vocational Technical High School
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About Minuteman

Mission Statement

Minuteman collaborates with parents, communities, and business leaders to serve a diverse student body with multiple learning styles. Through a challenging integrated curriculum, our students develop the academic, vocational, and technical skills necessary to be productive members of a global community. We value life-long learning that fosters personal and professional development in a safe and respectful environment.

Minuteman is committed to preparing all students for success.

Philosophy

Career and Technical Education is responsive to the economic needs of the workplace and the individual. Being engaged with employers, businesses, and post-secondary institutions better prepares Minuteman graduates to contribute to the strength of our nation and quality of life for its citizens. Minuteman recognizes that attainment of skills needed for success is best accomplished through understanding unique learning styles that result in high performance and individual success.

Goals

- **Foster Strong Communication:** Build clear, ongoing connections among parents, students, teachers, and industry partners through collaboration and active Advisory Committees.
- **Employ and Support Excellent Educators:** Hire highly trained instructors who stay current in their fields and use innovative, student-centered teaching methods.
- **Deliver Relevant, Rigorous Learning:** Provide strong academic and technical instruction using state-of-the-art tools and a whole-brain approach to meet diverse learning styles.
- **Promote Personalized Success:** Use fair assessments and accommodations that reflect individual needs, encouraging all students to achieve their potential.
- **Develop the Whole Student:** Cultivate self-awareness, empathy, adaptability, and interpersonal skills through classroom lessons, extracurriculars, and community engagement.
- **Instill Core Values:** Encourage respect, honesty, pride, and responsible citizenship in all aspects of learning and behavior.

Minuteman High School Profile

Minuteman High School Profile

Minuteman Regional Vocational Technical High School is an award-winning public high school in Lexington, Massachusetts. Situated on a 65-acre campus spanning the towns of Lexington and Lincoln, the school serves students from the towns of Acton, Arlington, Bolton, Concord, Dover, Lancaster, Lexington, Needham, and Stow. The school's address is 758 Marrett Road, Lexington, MA 02421.

Minuteman's name and identity honor the American colonists who fought the first battles of the Revolutionary War in the towns of Lexington and Concord. Minuteman is located close to the historical battle sites and is directly across from the Minute Man National Park.

Minuteman High School integrates rigorous academics with Career and Technical Education (CTE) to prepare students for college, career, and civic engagement. The school offers 19 DESE-approved CTE programs organized within an Academy Model, which promotes interdisciplinary learning and collaboration between academic and technical faculty. Students have access to a comprehensive co-curricular program that includes 14 MIAA-sponsored athletic programs as well as numerous clubs and activities.

Notice of Non-Discrimination

Federal law prohibits discrimination on the basis of race, color or national origin (Title VI of the Civil Rights Act of 1964); sex (Title IX of the Education Amendments of 1972); or disability (Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990) in educational programs or activities receiving federal financial assistance. Minuteman High School does not tolerate discrimination based on any non-merit factor, including race, national origin, color, religion, sex, sexual orientation, gender identity, disability (physical or mental), age status as a parent, or genetic information.

Curriculum Opportunities

Minuteman High School offers College Preparatory and Honors coursework in Mathematics, Science, English, History, and World Languages. Students are placed in courses based on demonstrated readiness and successful completion of prerequisite requirements. Advanced Placement (AP) and Dual Enrollment (DE) opportunities are available at various grade levels.

The Cooperative Education program provides eligible Juniors and Seniors with paid, supervised work experiences in their career technical field for approximately 30 hours per week during designated CTE weeks.

In addition to earning a high school diploma, graduating Seniors are eligible to earn industry-recognized credentials. In select career majors, instructional hours may be applied towards state licensing or apprenticeship requirements.

Qualified students may also have opportunities to test out of coursework, earn college credit while enrolled at Minuteman, or participate in independent study options, as approved by the school administration.

Minuteman High School Profile

Numerical Grade Letter Grade System

Numerical Grade	Letter Grade
97-100	A+
93-96	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62 (passing threshold)	D-
59-0	F

Graduation Requirements

To graduate from Minuteman High School, a student must meet the requirements for the year of graduation (YOG), including but not limited to coursework and credits.

English	8 credits	4 years - Academic
Math	8 credits	4 years - Academic
Science	8 credits	4 years - Academic
History	8 credits	4 years - Academic
Comprehensive Health & Physical Education	4 credits	4 years - Academic
Selectives or Electives, including World Language	8 credits	4 years - Academic
Career Exploration & Technical Study	52 credits	4 years - Vocational
Minimum Number of Credits Required for a Diploma	96 credits	

Competency Determination (CD)

If DESE or the State articulates requirements for CD, a student must pass any state-required assessments, projects, or expectations as applicable.

If law/regulations/DESE guidance defers the CD determination to the District, the following coursework, as determined by the District's grading policy and mastery as indicated below, is required to earn a CD:

Class of 2026

English 9 and English 10	4 credits	Common Final Exam minimum 70% mastery	Summer Support Opportunity for both/either coursework and/or mastery
Algebra I and Geometry	4 credits		
Biology, Physics, Chemistry, or Technology & Engineering	2 credits		

Minuteman High School Profile

Class of 2027 & Beyond

English 9 and English 10	4 credits	Common Final Exam minimum 70% mastery	Summer Support Opportunity for both/either coursework and/or mastery
Algebra I and Geometry	4 credits		
Biology, Physics, Chemistry, or Technology & Engineering	2 credits		
US History	2 credits		

Course Levels

Advanced Placement (AP) and Dual Enrollment (DE)

College Board Advanced Placement (AP) courses and Dual Enrollment courses offered in partnership with Middlesex Community College provide students with the opportunity to engage in college-level coursework and assessments while enrolled in high school. These courses are aligned with rigorous academic standards and are designed to support college and career readiness. Successful participation may allow students to earn college credit, strengthen their high school transcript, and reduce future postsecondary tuition costs. Placement is contingent on departmental approval.

Honors

Honors-level courses provide accelerated, rigorous instruction aligned with DESE curriculum frameworks and high academic expectations. These courses emphasize advanced critical thinking, analytical skills, and sustained student engagement. Coursework requires a high level of commitment, participation, and academic performance, with pacing and workload reflecting the increased rigor. Honors courses are recommended for students pursuing an academic pathway in preparation for successful transition to a four-year college or university. Placement is contingent on departmental approval.

College Prep 1

College Preparatory Level 1 courses are designed to Massachusetts Department of Elementary and Secondary Education (DESE) expectations for college and career readiness. These courses provide rigorous, standards-aligned instruction that emphasize critical thinking, problem-solving, independent learning and effective communication skills. Coursework prepares students for the academic demands of a two- or four-year college or university.

College Prep 2

College Preparatory Level 2 courses are aligned with DESE curriculum frameworks and utilize differentiated instructional strategies to support diverse learning needs. Instruction focuses on building foundational skills, reinforcing academic competencies, and promoting student growth to ensure readiness for postsecondary education and career pathways.

Advanced Coursework (**Advanced**)

The Massachusetts Department of Elementary and Secondary Education (DESE) defines advanced coursework as high school courses that provide students with challenging, college- and career- ready learning experiences.

*All course offerings are subject to minimum enrollments, and some courses may not be offered each year.

Dual Enrollment

Dual Enrollment Academy

Motivated Minuteman students can jump-start their college careers early. Through the **Middlesex/Minuteman Dual Enrollment Academy**, qualified students earn college credits at a significantly reduced cost while completing their high school requirements.

Standard Dual Enrollment (On-Site)

Most students participate by taking Middlesex Community College-certified courses taught directly at Minuteman. To qualify, students must meet the following criteria:

- **Academic Standing:** Minimum **2.5 overall GPA** and at least an **85%** in the subject area during the previous year.
- **Attendance:** Minimum **92% attendance** record from the previous school year.
- **Testing:** A qualifying PSAT/SAT score (minimum **480** on the EBRW).
- **Endorsements:** Recommendation from the previous year's subject teacher and approval from a Guidance Counselor.
- **Financials:** Students are responsible for all tuition and fees.

Off-Site Dual Enrollment (Case-by-Case)

Requests to earn credit for attending classes on the Middlesex campus or for synchronous online courses are reviewed individually. In addition to the standard eligibility requirements above, the following conditions apply:

- **Course Availability:** The course must fulfill a graduation requirement that is not available through Minuteman's current offerings.
- **Schedule Integrity:** College courses must not interfere with the regular high school day (no early dismissals or late arrivals).
- **Course Load:** Students are limited to a maximum of **two courses per semester**.
- **Logistics:** Students are responsible for all transportation, tuition, fees, and associated costs.
- **Continued Eligibility:** Students must maintain all program requirements to remain enrolled in the off-site track.

The National Collegiate Athletic Association (NCAA)

In order to be considered by the National Collegiate Athletic Association (NCASS) to play Division I or Division II athletics at the collegiate level, high school students must apply through the NCAA initial eligibility center (formally the clearinghouse). The NCAA determines what courses may be used toward initial eligibility requirements. Student-athletes are cautioned to review the list of approved courses for Minuteman High School by visiting the NCAA website and are urged to see their school counselor for more details. It is the student's responsibility to notify the principal by the end of the first semester of junior year if they intend to apply to the NCAA.

Dual Enrollment

Massachusetts State University System and UMass Minimum Admissions Requirements

Subject	Class of 2017 and beyond
English	4 courses
Mathematics	4 courses (Algebra I & II and Geometry or Trigonometry, or comparable coursework) including mathematics during the final year of high school
Sciences	3 courses (drawn from Natural Science and/or Physical Science and/or Technology/ Engineering; including 2 courses with laboratory work)
Social Sciences	2 courses (including 1 course in U.S. History)
Foreign Languages	2 courses (in a single language)
Electives	2 courses (from the above subjects or from the Arts & Humanities or Computer Sciences)

Academic Course Descriptions • Grade 9

Grade 9 English

English 9 • Honors • 4 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This honors-level course features instruction using a variety of genres, both contemporary and classic. The short story, novel, drama, poetry, nonfiction, and film will be examined. Independent reading activities will adhere to a “book club” model. Composition assignments will follow the John Collins Writing Program with Focus Correction Areas (FCA), and they will proceed in a pattern of increasing levels of sophistication. In addition to grammar, mechanics, and MCAS preparation, emphasis will be placed on active listening, speaking, and study skills, as well as reading comprehension, literary analysis, creative writing, research, use of technology, and connections between the studied material and real life. A number of academic-vocational activities will be pursued in order to enhance students’ experiences and studies in their technical majors.

English Department permission is required.

(DESE Code – English/Language Arts I; 01001)

English 9 • College Prep 1 • 4 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course features the study of a variety of genres, including the short story, novel, drama, poetry, and nonfiction. Reading comprehension and connections between studied material and real life are stressed. Composition assignments will follow the John Collins Writing Program with Focus Correction Areas (FCA). In addition to grammar, mechanics, and MCAS preparation, emphasis will be placed on the following: study skills, vocabulary development, research, and speaking and listening skills. A number of academic-vocational activities will be pursued in order to enhance students’ experiences and studies in their technical majors. The course will help students to build upon and sharpen skills in reading, writing, and language areas.

(DESE Code – English/Language Arts I; 01001)

English 9 • College Prep 2 • 4 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course will service those students whose reading, writing, and communication skills require remediation using a variety of instructional methods. Each student will work to refine and build skills necessary to succeed both in school and in the community. Through the John Collins Writing Program and Focus Correction Areas, emphasis will be placed specifically on the writing process. The major areas addressed include grammar, mechanics, writing with a clear focus, coherent organization, and incorporating sufficient details. The novel, short story, drama, poetry, nonfiction, and film will be examined. Students will improve and develop reading comprehension and analytical skills through a variety of before, during, and after-reading strategies. Classroom discussion, both in the small and large group context, will frequently take place to enrich the students’ oral communication skills. Students will work to improve their study skills and organization habits as they prepare for the MCAS English Language Arts Test to be taken sophomore year. Throughout the academic year, the course will feature a variety of activities that incorporate the students’ experiences and studies in their vocational majors.

(DESE Code – English/Language Arts I; 01001)

Academic Course Descriptions • Grade 9

Reading 9 • College Prep 2 • 1 Credit

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This is a comprehensive reading intervention program designed to improve student literacy skills. This course combines computer software, small group instruction, and high-interest independent reading, to improve decoding, fluency, vocabulary, and reading comprehension.

(DESE Code – Assisted Reading; 01067)

Grade 9 Mathematics

Algebra 2 • Honors • 4 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course further examines algebraic relationships requiring manipulative skills and mathematical abstraction. It includes an examination of functions, logarithms, circles, trigonometry, transformations, probability, statistics, matrices, theory of equations, binomial theorem, and mathematical induction.

(DESE Code – Algebra II; 02056)

Algebra 1 • College Prep 1 • 4 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course is designed to prepare students for college admission. Topics include integers, linear equations and inequalities, factoring, graphing linear sentences, systems of equations, factoring, systems of inequalities, and the quadratic formula.

(DESE Code – Algebra I; 02052)

Geometry A • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course is taken in conjunction with Algebra 1A. The emphasis is on math skills: whole numbers, fractions, decimals, percentages, and measurements. The goal of the course is to prepare the students to be successful in their vocational areas as well as in further math courses. Students will work at their own individual pace through the topics as well as work on vocational related problems and activities in groups. This math course is designed for student who would benefit from a strong emphasis on MCAS preparation and additional support in basic math concepts.

(DESE Code – Geometry; 02072)

Algebra 1A • College Prep 1 • 4 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This is the first in a two-year Algebra 1 sequence. Algebra skills will be developed through hands-on activities and real-life applications. Topics include properties of real numbers, solving linear equations, proportions, basic statistics, and data collection. This math course is designed for students who would benefit from a strong emphasis on MCAS preparation and additional support in basic math concepts.

(DESE Code – Algebra I; 02053)

Academic Course Descriptions • Grade 9

Grade 9 Science

Biology 1 • Honors • 2 Credits

This course, in conjunction with Biology 2, aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Biology. This course is for students planning on attending a 4- year college where a high understanding of biology and the scientific research process is expected. Topics covered include ecology, biomolecule structure and function, and cellular processes. Within these areas, students are expected to apply mathematical and engineering practices to create models, interpret and analyze data trends, and develop explanations. Students in this course must possess strong mathematical skills and an interest in going beyond the standard high school curriculum. Students will engage in extensive scientific reading and writing with an emphasis on clear communication.

(DESE Code – Biology; 03051)

Biology 1 • College Prep 1 • 2 Credits

This course, in conjunction with Biology 2, aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Biology. This is the first year of a 2- year course with a strong emphasis on laboratory techniques and data gathering skills, designed to prepare students for a 2- or 4-year college. Topics will be covered in depth and workload will be consistent with that of a college bound student. First year topics will include chemistry of life, cells, ecosystems, and cell division. These topics are consistent with the State frameworks in biology.

(DESE Code – Biology; 03051)

Biology 1 • College Prep 2 • 2 Credits

This course, in conjunction with Biology 2, aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Biology. is the first year of a two- year preparation designed to equip students with the necessary skills to pass the biology portion of the science MCAS exam. The focus of this first year course will be to cover the topics of basic chemistry, cells, ecosystems, and cell division. A strong emphasis will be placed on laboratory participation and techniques.

(DESE Code – Biology; 03051)

Academic Course Descriptions • Grade 9

Grade 9 Social Studies

World History • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. This course is designed to provide advanced students with analytic and problem-solving skills that can be critically applied when assessing problems in our world today. Students will engage in an in-depth study of world cultures from the decline of Rome to the Age of Industrialization. This program of area studies and world affairs will require students to develop the necessary skills to make informed decisions and to present their ideas clearly in writing.

(DESE Code – World History; 04051)

World History I • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. Students will examine the development of world civilizations starting with the fall of the Roman Empire. Some of the civilizations examined through primary and secondary sources include empires from the Middle East, Africa, India, Chinese dynasties and the pre-Columbian civilizations that existed in Central and South America. Students will critically compare and contrast important political, economic and religious developments of this period, including the increasing global conflicts between Christianity and Islam. Students will complete the course by studying the development of democratic, scientific, and secular thought and evaluating its influence on major events in Europe and North America.

(DESE Code – World History; 04051)

World History I • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. Students will examine the development of world civilizations starting with the fall of the Roman Empire. Some of the civilizations examined through primary and secondary sources include empires from the Middle East, Africa, India, Chinese dynasties and the pre-Columbian civilizations that existed in Central and South America. Students will critically compare and contrast important political, economic and religious developments of this period, including the increasing global conflicts between Christianity and Islam. Students will complete the course by studying the development of democratic, scientific, and secular thought and evaluating its influence on major events in Europe and North America.

(DESE Code – World History; 04051)

Academic Course Descriptions • Grade 9

Grade 9 Comprehensive Health And Physical Education

Comprehensive Health and Physical Education • College Prep 1 • 1 Credit

This course will provide students with the knowledge, skills, and motivation to engage in physical activities that promote long-term health and wellness. Emphasizing the importance of regular exercise, movement, and mental well-being, students will explore a variety of physical activities suitable for all fitness levels. In addition to developing physical fitness, the course will focus on fostering habits that contribute to emotional and psychological health, such as stress management techniques and mindfulness practices. This course is perfect for anyone seeking to enhance their overall health and develop a lifelong commitment to wellness.

(DESE Code – Physical Education; 08001)

Team Sports • College Prep 1 • 1 Credit

This highly active PE course is designed to focus on competitive team sports. Emphasis is on sportsmanship, team building skills and respect for rules. The class will be centered around traditional team sports and will give students an opportunity to improve their physical movement skills while learning how to collaborate effectively in competitive environments. The team sports class is designed for students interested in enhancing their athletic skills through team-based competition. In this class, students will engage in a variety of competitive sports, focusing on both individual skill development and team dynamics. Emphasizing strategic play, teamwork, and sportsmanship, students will participate in organized games to refine their abilities. The goal is to foster teamwork, leadership, and a competitive spirit while creating an environment that encourages personal growth, emotional resilience, and physical well-being.

(DESE Code – Physical Education; 08002)

Grade 9 Student Support

Student Learning Center (SLC) • College Prep 1 • 2 Credits

The Student Learning Center is a structured support class designed to help students strengthen the academic and organizational skills needed for success in general education courses. Focus is on developing executive functioning skills such as time management, organization, task initiation, and self-monitoring. Students receive guided support in managing assignments, prioritizing tasks, and improving work completion. Emphasis is placed on fostering independence, self-advocacy, and consistent academic habits. Enrollment in the Student Learning Center is determined through the 504 Team, Student Support Team (SST), or by guidance counselor recommendation based on individual student needs.

(DESE Code – All Subjects; 99999)

Academic Support (AS) • College Prep 1 • 2 Credits

Academic Support is a specialized service that provides targeted instruction to students with Individualized Education Programs (IEPs). This service is delivered in a small group setting and focuses on each student's specific goal areas as outlined in their IEP. The small group environment allows for increased teacher support, frequent check-ins, and individualized feedback. Instruction is differentiated to ensure accessibility and engagement while promoting skill development aligned with grade-level expectations. The program also emphasizes the development of key strategies such as organization, time management, and self-advocacy.

(DESE Code – All Subjects; 99999)

Academic Course Descriptions • Grade 9 Electives

Please Note: All elective courses have minimum enrollment requirements.

World Languages

Spanish 1 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. This beginning Spanish course is an introduction to the Spanish language and Hispanic culture and geography. Emphasis is on confidence-building in elementary conversation.

(DESE Code – Spanish 1; 06101)

Spanish 2 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. Students continue to develop skills learned in Spanish 1 with more emphasis on refinement of oral expression, reading, writing, and culture studies. Students will build on skills mastered in Spanish 1 to increase their comfort level with the language.

(DESE Code – Spanish 2; 06102)

Spanish 3 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. In this intermediate Spanish course students will begin to hone oral, written, and reading comprehension skills. Students are introduced to more advanced grammar with an emphasis on proficiency and communication. There is further study of Hispanic culture with an emphasis on Central and South American countries, and Hispanic- American culture.

(DESE Code – Spanish 3; 06103)

Spanish 4 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. In this advanced Spanish course students will continue to fine-tune speaking, reading, and writing skills. Special emphasis is on Spanish in the workplace: vocabulary building and inter-cultural communication skills. Finer grammar points will be covered including irregular verbs and complex verb tenses, pronoun usage, and idiomatic expressions.

(DESE Code – Spanish 4; 06104)

American Sign Language (ASL) 1 • College Prep 1 • 2 Credits

This course provides an introduction to American Sign Language (ASL), which is the fourth most commonly used language in the US. ASL is a visual way of communicating using hand gestures, facial expressions, and body movements. Areas studied include grammatical structure, conversation, and cultural information related to Deaf Culture and the Deaf Community. Unit topics include school and routines, holidays and vacations, jobs, and deaf storytelling. Class work and homework assignments focus on ASL expressive and receptive skill development, through hands-on activities, partner and group work. External resources include *El Deafo* by Cece Bell and *The HAMMER* directed by Oren Kaplan.

(DESE Code – American Sign Language I; 06801)

Academic Course Descriptions • Grade 9 Electives

American Sign Language (ASL) 2 • College Prep 1 • 2 Credits

Continuing the work began in American Sign Language 1 (ASL 1), students will continue to learn grammar, vocabulary, and culture from the Deaf community. Students will continue to build their foundational knowledge and focus more specifically on conversation and presentational ASL, storytelling, and some ASL slang. Cultural information will focus specifically on the Deaf Culture, how technology assists Deaf in certain jobs, and how Deaf storytelling differs from the Hearing culture. Unit topics will include food and cooking, health, visual storytelling, music and interpretation, art and poetry. Similar to ASL 1, ASL 2 will focus class work and homework expressive and receptive skill development, and continued partner and group work. Proposed external resources are CODA directed by Sian Heder, and an overview of Deaf Poetry (proposed poets: Douglas Ridloff, Raymond Luczak, and Wawa Snipe). (DESE Code – American Sign Language II; 06802)

American Sign Language (ASL) 3 • Honors • 2 Credits

Continuing the work began in American Sign Language 2 (ASL 2), students will continue to learn grammar, vocabulary, and culture from the Deaf community. Students will begin to build more of a sense of the different types of body language and styles of expression that exist in ASL, and the grammatical structures they follow. Cultural information will focus specifically on the Deaf Cultures, views on hearing devices, and how news and communication differ between the Deaf and Hearing cultures. Proposed unit topics are international travel, weather and the environment, the DeafBlind Culture, and the debate over cochlear implants. Similar to ASL 2, ASL 3 will focus class work and homework expressive and receptive skill development, and continued partner and group work. Proposed external resources are THE AUTOBIOGRAPHY OF HELEN KELLER by Helen Keller and SOUND AND FURY directed by Josh Aronson. (DESE Code – American Sign Language III; 06803)

Art

Studio Art • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course offers a choice-based studio environment where students explore their own artistic voice through guided lessons and independent projects. The course encourages creative problem-solving, experimentation with materials, and personal expression. Students will engage with a variety of artistic processes, including drawing, painting, printmaking, mixed media, and digital art, while considering historical, cultural, and aesthetic contexts. A willingness to engage in the creative process is valued over prior experience or technical skill. (DESE Code – Visual Arts-Other; 05199)

Advanced Studio Art • Honors • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This honors-level studio course also meets the national performance standards set by the AP Studio Art program. Rather than a written exam, students will submit portfolios for evaluation at the end of the school year. Designed for students who are deeply committed to the practical experience of art, this course emphasizes portfolio development, presentation, and individual expression through in-depth projects known as “Sustained Inquiries.” Students will complete a balanced portfolio that fulfills the requirements of the College Board AP Studio Art program. This portfolio serves as an essential prerequisite for applying to accredited art schools, colleges, and universities.

Suggested Prerequisites:

- 1-2 years of studio art or
- Instructor permission

Students should expect to dedicate time outside of class to develop their chosen sustained inquiry and meet the rigorous demands of this advanced-level course.

(DESE Code – Visual Arts-Other; 05199)

Academic Course Descriptions • Grade 9 Electives

Photography • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed to introduce high school students to the world of photography by integrating communication skills and artistic proficiencies. Through the lens of photography, students will explore various aspects including camera operation, film and digital technical knowledge, and the aesthetic principles of photography. Students will develop their production skills through hands-on experience with cameras, studio lighting techniques, film development, and digital editing software. They will learn to capture, compose, and edit images effectively, enhancing their ability to communicate visually. By exploring both traditional and digital photographic techniques students develop skills, knowledge and confidence to create, present, respond, and connect to their unique photographic style and voice through practice.

(DESE Code – Photography; 05167)

Music

Keyboard • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed for all students in grades 9-12 who have an interest in playing the piano. This class is appropriate for both beginners and advanced students and is taught within a small group setting. Students do not need a piano or keyboard at home. All the instruments and learning materials will be provided. Students will learn to apply strategies for effective piano practice by studying aptitude-appropriate exercises and pieces from a variety of musical styles. Major topical units include: musical symbols and reading Standard Western Notation, finger independence and technique, time signatures and counting, music theory, and stylistic interpretation.

(DESE Code – Piano; 05108)

Guitar - College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed to teach beginning through advanced students the fundamentals of guitar techniques. All that students need is a strong desire to learn to play! Guitars, tuners, and all learning materials will be provided. Students will acquire a strong foundation in music theory and practice by studying and performing appropriate guitar exercises and written music within a group setting. Areas of study include: proper playing position, tuning, reading music notation and guitar tablature, singular note playing, chord playing, time signatures and counting, and basic guitar maintenance.

(DESE Code – Guitar; 05109)

Music Production • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. Music Production may be taken by any student interested in learning how to create, record, and mix original music. Students will use state-of-the-art audio production software and hardware to apply concepts of song creation, audio recording, signal processing, and mastering. Other topics include microphone techniques, multitrack recording, loop-based music creation, using virtual synthesizer technology and MIDI, and critically assessing sound quality.

(DESE Code – Recording and Production; 05123)

Academic Course Descriptions • Grade 9 Electives

Music History • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. Music History is an elective course for students in grades 9-12 which focuses on aspects of music history, appreciation, and analysis of Classical, Jazz, Rock, and Hip-Hop styles. Students will learn about the personal life experiences and influences of musical artists to understand the forces which impacted their work. Students will listen to representative compositions and apply proper musical terminology in discussing and critically analyzing musical works. No prior musical knowledge or experience is required for success in this course.

(DESE Code – Music History/Appreciation; 05117)

Academic Course Descriptions • Grade 10

Grade 10 English

American Literature 10 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. In this honors-level course, students will study three major works of American literature: *The Great Gatsby*, *The Piano Lesson*, *Death of a Salesman*, and/or *The Catcher in the Rye*. All will be studied in their unique historical and social context. Through careful reading and close attention to each author's unique style and choices, students will sharpen their skills in literary analysis and, at the same time, an insight into the ever-evolving American experience. In addition to making connections and discerning parallels between these three canonical texts, students will be required to make similar connections to selected excerpts of literary criticism and various shorter pieces spanning multiple genres. Writing assignments will follow the John Collins Writing Program with Focus Correction Areas gradually increasing in level of sophistication.

This course must be taken concurrently with English Composition 10 • Honors.

English Department permission is required.

(DESE Code - American Literature; 01054)

English Composition 10 • Honors • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This honors-level course is designed to engage students in various modes of written and oral expression. Written modes will include detailed literary analysis in essay form, persuasive writing, personal reflection, and creative writing. Writing assignments will follow the John Collins Writing Program with Focus Correction Areas gradually increasing in level of sophistication. Oral modes will include group debates, large and small group discussions, and individual and group presentations. A variety of contemporary and classic genres including the novel, short story, drama, non-fiction, and film will be explored, including *Their Eyes Were Watching God*, *12 Angry Men*, and/or *The Crucible*. Independent reading will use a "book club" model.

This course must be taken concurrently with American Literature 10 • Honors.

English Department permission is required.

(DESE Code – English/Composition; 01101)

English 10 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course enhances skills in critical thinking, reading comprehension, literary analysis, and analytical writing as students prepare for the MCAS exam. Over the course of the year, students will read a variety of myths and legends from around the world, connecting them to our own society. Students will study poetry as it connects to art and mythology. Potential titles include: *The Nickel Boys*, *The Absolutely True Diary of a Part-Time Indian*, and *Of Mice and Men*. In addition, a variety of study techniques including notetaking, listening, and organizational skills will be introduced and practiced throughout the year. Finally, composition assignments will follow the John Collins Writing Program with Focus Correction Areas (FCA).

This course must be taken concurrently with Language Arts 10 • College Prep 1.

(DESE Code – English/Language Arts II; 01002)

Academic Course Descriptions • Grade 10

Language Arts 10 • College Prep 1 • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. In this course, primarily non-fiction reading materials will be used to examine the structure and style of a variety of non-fictional genres including the following: personal narratives/memoirs, biographies, informative essays, newspapers, magazine and trade journal articles, persuasive essays and letters, and demonstration essays. Potential titles include *Night*, *Macbeth*, and *Every Falling Star*. Students will develop writing skills required for MCAS Open Response and Composition. In addition, they will write for different purposes such as personal narratives, persuasive essays and letters, demonstration speeches, and brochures. Composition assignments will follow the John Collins Writing Program with Focus Correction Areas (FCA). Students will develop oral communication skills through discussion, debate, and speech.

This course must be taken concurrently with English 10 • College Prep 1.
(DESE Code – English/Language Arts II; 01002)

English 10 • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course services those students whose writing and reading skills require remediation. Students will regularly write a variety of responses, often reacting to a piece of literature. The course will commence with the writing of various paragraph types and will move toward extended responses to literature. Students will follow the writing process with an emphasis on the John Collins Writing Program. This English course is designed for students who would benefit from a strong emphasis on MCAS preparation and additional support in basic English concepts. The Focus Correction Areas will concentrate on grammar, punctuation, sentence structure, and other important aspects of writing. The FCAs will also emphasize content, including comprehension of literature, ability to extract information from a text, and making connections with reading.

This course must be taken concurrently with Language Arts 10 • College Prep 2.
(DESE Code – English/Language Arts II; 01002)

Language Arts 10 • College Prep 2 • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course is a continuation of the English 9 CP2 curriculum and emphasizes basic reading, literature, and writing skills in a sequential manner. Using a thematic approach, units such as “Teen Issues,” “Reading the Newspaper,” “Business Letter Writing,” and health/social issues such as the “Dangers of Smoking,” and “Prisoners Wrongfully Accused” are taught. Study skills, grammar, vocabulary, and oral presentation skills pertaining to academic/vocational integration are reinforced throughout the year. Literature under study includes *Of Mice and Men* and *Shawshank Redemption*. In addition, a major focus is placed on MCAS preparation: Answering open response questions, understanding literary terms, learning test taking strategies, and writing the five-paragraph essay are emphasized. This course is ideal for students interested in reinforcing basic skills through high-interest, thematic units incorporating hands-on activities.

This course must be taken concurrently with English 10 • College Prep 2 or with Reading 10 • College Prep 2.
(DESE Code – English/Language Arts II; 01002)

Academic Course Descriptions • Grade 10

Reading 10 • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This is a comprehensive reading intervention program designed to improve student literacy skills. This course combines computer software, small group instruction, and high-interest independent reading, to improve decoding, fluency, vocabulary, and reading comprehension.

This course must be taken concurrently with Language Arts 10 • College Prep 2.

(DESE Code – Assisted Reading; 01067)

Academic Course Descriptions • Grade 10

Grade 10 Mathematics

Geometry • Honors • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course places emphasis on mathematical theory in manipulating geometric concepts. Topics include Euclidean proof, circles, area and volume of solids, coordinate and transformational geometry, parallelism, congruent and similar figures, and right triangle trigonometry.

Prerequisites: Level 1 Algebra I and by permission of Department Lead.

(DESE Code – Geometry; 02073)

Geometry • College Prep 1 • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. Topics covered are points, lines, planes, space, angles, triangles, congruence, similarity, perpendiculars, parallels, polygons, area, circles, right angles, volume, coordinate geometry and construction.

Prerequisite: Algebra I

(DESE Code – Geometry; 02072)

Algebra 1B • College Prep 1 • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This is the second in a two-year Algebra 1 sequence. Algebra skills will be developed through hands on activities and real-life applications. Topics covered include graphing linear equations, inequalities, and systems of equations.

Completion of this course will be the equivalent of completing Algebra 1.

(DESE Code – Algebra I; 02054)

Geometry B • College Prep 1 • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. Geometry B is to be taken in conjunction with Algebra 1B. This geometry course is designed for students who would benefit from a strong emphasis on MCAS preparation and additional support in basic math concepts. Basic geometry topics will include angles, area, volume, and similarity. The course will offer a variety of problem solving and hands-on activities.

(DESE Code – Geometry; 02072)

Academic Course Descriptions • Grade 10

Grade 10 Science

Biology 2 • Honors • 2 Credits • (CD)

This course, in conjunction with Biology 1, aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Biology. is the second year of college preparatory biology which covers biological systems in more detail. Students will continue to develop laboratory skills consistent with college level curricula. Topics will include genetics, evolution, and environmental issues.

Prerequisite for this course is the successful completion of Biology 1.

(DESE Code - Particular Topics in Biology; 03063)

Biology 2 • College Prep 1 • 2 Credits • (CD)

This course, in conjunction with Biology 1, aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Biology. is the second year of college preparatory biology. Students will continue to develop laboratory skills consistent with college level curricula. Topics will include genetics, evolution, and environmental issues.

Prerequisite for this course is the successful completion of Biology 1.

(DESE Code - Particular Topics in Biology; 03063)

Biology 2 • College Prep 2 • 2 Credits • (CD)

This course, in conjunction with Biology 1, aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Biology. This second- year course is a continuation of the standards in preparation for the state MCAS exam in biology. The topics for this year will focus on genetics, evolution, and environmental issues. This science course is designed for students who would benefit from a strong emphasis on MCAS preparation and additional support in basic science concepts.

Prerequisite for this course is the successful completion of Biology 1.

(DESE Code - Particular Topics in Biology; 03063)

Academic Course Descriptions • Grade 10

Grade 10 Social Studies

United States History 1 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. Honors United States History 1 is a survey course that addresses themes in our country's history from its origins to World War 1. The development of analytical thinking and problem-solving skills will be fostered through student research and demonstration through summative assessments, such as writing assignments, tests, projects and class presentations. (DESE Code – Early US History; 04012)

United States History 1 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. This course is designed for college bound students and surveys United States history from our nation's origins to World War 1. This course provides students with the necessary skills to assess crucial issues in our country's history and the role of the United States in past world events through a wide variety of summative assessments. (DESE Code – Early US History; 04012)

United States History 1 • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. This basic United States history course is designed to assist students with improving their overall content knowledge through differentiated and specialized instruction. Students will examine our nation's history from its origins to World War 1. Students will be expected to arrive at conclusions based on informed judgement and to present their viewpoints in a clear and persuasive manner. (DESE Code – Early US History; 04012)

Academic Course Descriptions • Grade 10

Grade 10 Comprehensive Health And Physical Education

Comprehensive Health and Physical Education • College Prep 1 • 1 Credit

This course will provide students with the knowledge, skills, and motivation to engage in physical activities that promote long-term health and wellness. Emphasizing the importance of regular exercise, movement, and mental well-being, students will explore a variety of physical activities suitable for all fitness levels. In addition to developing physical fitness, the course will focus on fostering habits that contribute to emotional and psychological health, such as stress management techniques and mindfulness practices. This course is perfect for anyone seeking to enhance their overall health and develop a lifelong commitment to wellness.

(DESE Code – Physical Education; 08001)

Team Sports • College Prep 1 • 1 Credit

This highly active PE course is designed to focus on competitive team sports. Emphasis is on sportsmanship, team building skills and respect for rules. The class will be centered around traditional team sports and will give students an opportunity to improve their physical movement skills while learning how to collaborate effectively in competitive environments. The team sports class is designed for students interested in enhancing their athletic skills through team-based competition. In this class, students will engage in a variety of competitive sports, focusing on both individual skill development and team dynamics. Emphasizing strategic play, teamwork, and sportsmanship, students will participate in organized games to refine their abilities. The goal is to foster teamwork, leadership, and a competitive spirit while creating an environment that encourages personal growth, emotional resilience, and physical well-being.

(DESE Code – Physical Education; 08002)

Grade 10 Student Support

Student Learning Center (SLC) • College Prep 1 • 2 Credits

The Student Learning Center is a structured support class designed to help students strengthen the academic and organizational skills needed for success in general education courses. Focus is on developing executive functioning skills such as time management, organization, task initiation, and self-monitoring. Students receive guided support in managing assignments, prioritizing tasks, and improving work completion. Emphasis is placed on fostering independence, self-advocacy, and consistent academic habits. Enrollment in the Student Learning Center is determined through the 504 Team, Student Support Team (SST), or by guidance counselor recommendation based on individual student needs.

(DESE Code – All Subjects; 99999)

Academic Support (AS) • College Prep 1 • 2 Credits

Academic Support is a specialized service that provides targeted instruction to students with Individualized Education Programs (IEPs). This service is delivered in a small group setting and focuses on each student's specific goal areas as outlined in their IEP. The small group environment allows for increased teacher support, frequent check-ins, and individualized feedback. Instruction is differentiated to ensure accessibility and engagement while promoting skill development aligned with grade-level expectations. The program also emphasizes the development of key strategies such as organization, time management, and self-advocacy.

(DESE Code – All Subjects; 99999)

Academic Course Descriptions • Grade 10 Electives

Please Note: All elective courses have minimum enrollment requirements.

World Languages

Spanish 1 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. This beginning Spanish course is an introduction to the Spanish language and Hispanic culture and geography. Emphasis is on confidence-building in elementary conversation.

(DESE Code – Spanish 1; 06101)

Spanish 2 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. Students continue to develop skills learned in Spanish 1 with more emphasis on refinement of oral expression, reading, writing, and culture studies. Students will build on skills mastered in Spanish 1 to increase their comfort level with the language.

(DESE Code – Spanish 2; 06102)

Spanish 3 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. In this intermediate Spanish course students will begin to hone oral, written, and reading comprehension skills. Students are introduced to more advanced grammar with an emphasis on proficiency and communication. There is further study of Hispanic culture with an emphasis on Central and South American countries, and Hispanic- American culture.

(DESE Code – Spanish 3; 06103)

Spanish 4 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. In this advanced Spanish course students will continue to fine-tune speaking, reading, and writing skills. Special emphasis is on Spanish in the workplace: vocabulary building and inter-cultural communication skills. Finer grammar points will be covered including irregular verbs and complex verb tenses, pronoun usage, and idiomatic expressions.

(DESE Code – Spanish 4; 06104)

American Sign Language (ASL) 1 • College Prep 1 • 2 Credits

This course provides an introduction to American Sign Language (ASL), which is the fourth most commonly used language in the US. ASL is a visual way of communicating using hand gestures, facial expressions, and body movements. Areas studied include grammatical structure, conversation, and cultural information related to Deaf Culture and the Deaf Community. Unit topics include school and routines, holidays and vacations, jobs, and deaf storytelling. Class work and homework assignments focus on ASL expressive and receptive skill development, through hands-on activities, partner and group work. External resources include *El Deafo* by Cece Bell and *The HAMMER* directed by Oren Kaplan.

(DESE Code – American Sign Language I; 06801)

Academic Course Descriptions • Grade 10 Electives

American Sign Language (ASL) 2 • College Prep 1 • 2 Credits

Continuing the work began in American Sign Language 1 (ASL 1), students will continue to learn grammar, vocabulary, and culture from the Deaf community. Students will continue to build their foundational knowledge and focus more specifically on conversation and presentational ASL, storytelling, and some ASL slang. Cultural information will focus specifically on the Deaf Culture, how technology assists Deaf in certain jobs, and how Deaf storytelling differs from the Hearing culture. Unit topics will include food and cooking, health, visual storytelling, music and interpretation, art and poetry. Similar to ASL 1, ASL 2 will focus class work and homework expressive and receptive skill development, and continued partner and group work. Proposed external resources are CODA directed by Sian Heder, and an overview of Deaf Poetry (proposed poets: Douglas Ridloff, Raymond Luczak, and Wawa Snipe). (DESE Code – American Sign Language II; 06802)

American Sign Language (ASL) 3 • Honors • 2 Credits

Continuing the work began in American Sign Language 2 (ASL 2), students will continue to learn grammar, vocabulary, and culture from the Deaf community. Students will begin to build more of a sense of the different types of body language and styles of expression that exist in ASL, and the grammatical structures they follow. Cultural information will focus specifically on the Deaf Cultures, views on hearing devices, and how news and communication differ between the Deaf and Hearing cultures. Proposed unit topics are international travel, weather and the environment, the DeafBlind Culture, and the debate over cochlear implants. Similar to ASL 2, ASL 3 will focus class work and homework expressive and receptive skill development, and continued partner and group work. Proposed external resources are THE AUTOBIOGRAPHY OF HELEN KELLER by Helen Keller and SOUND AND FURY directed by Josh Aronson. (DESE Code – American Sign Language III; 06803)

Art

Studio Art • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course offers a choice-based studio environment where students explore their own artistic voice through guided lessons and independent projects. The course encourages creative problem-solving, experimentation with materials, and personal expression. Students will engage with a variety of artistic processes, including drawing, painting, printmaking, mixed media, and digital art, while considering historical, cultural, and aesthetic contexts. A willingness to engage in the creative process is valued over prior experience or technical skill. (DESE Code – Visual Arts-Other; 05199)

Advanced Studio Art • Honors • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This honors-level studio course also meets the national performance standards set by the AP Studio Art program. Rather than a written exam, students will submit portfolios for evaluation at the end of the school year. Designed for students who are deeply committed to the practical experience of art, this course emphasizes portfolio development, presentation, and individual expression through in-depth projects known as “Sustained Inquiries.” Students will complete a balanced portfolio that fulfills the requirements of the College Board AP Studio Art program. This portfolio serves as an essential prerequisite for applying to accredited art schools, colleges, and universities.

Suggested Prerequisites:

- 1-2 years of studio art or
- Instructor permission

Students should expect to dedicate time outside of class to develop their chosen sustained inquiry and meet the rigorous demands of this advanced-level course.

(DESE Code – Visual Arts-Other; 05199)

Academic Course Descriptions • Grade 10 Electives

Photography • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed to introduce high school students to the world of photography by integrating communication skills and artistic proficiencies. Through the lens of photography, students will explore various aspects including camera operation, film and digital technical knowledge, and the aesthetic principles of photography. Students will develop their production skills through hands-on experience with cameras, studio lighting techniques, film development, and digital editing software. They will learn to capture, compose, and edit images effectively, enhancing their ability to communicate visually. By exploring both traditional and digital photographic techniques students develop skills, knowledge and confidence to create, present, respond, and connect to their unique photographic style and voice through practice.

(DESE Code – Photography; 05167)

Music

Keyboard • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed for all students in grades 9-12 who have an interest in playing the piano. This class is appropriate for both beginners and advanced students and is taught within a small group setting. Students do not need a piano or keyboard at home. All the instruments and learning materials will be provided. Students will learn to apply strategies for effective piano practice by studying aptitude-appropriate exercises and pieces from a variety of musical styles. Major topical units include: musical symbols and reading Standard Western Notation, finger independence and technique, time signatures and counting, music theory, and stylistic interpretation.

(DESE Code – Piano; 05108)

Guitar - College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed to teach beginning through advanced students the fundamentals of guitar techniques. All that students need is a strong desire to learn to play! Guitars, tuners, and all learning materials will be provided. Students will acquire a strong foundation in music theory and practice by studying and performing appropriate guitar exercises and written music within a group setting. Areas of study include: proper playing position, tuning, reading music notation and guitar tablature, singular note playing, chord playing, time signatures and counting, and basic guitar maintenance.

(DESE Code – Guitar; 05109)

Music Production • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. Music Production may be taken by any student interested in learning how to create, record, and mix original music. Students will use state-of-the-art audio production software and hardware to apply concepts of song creation, audio recording, signal processing, and mastering. Other topics include microphone techniques, multitrack recording, loop-based music creation, using virtual synthesizer technology and MIDI, and critically assessing sound quality.

(DESE Code – Recording and Production; 05123)

Academic Course Descriptions • Grade 10 Electives

Music History • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. Music History is an elective course for students in grades 9-12 which focuses on aspects of music history, appreciation, and analysis of Classical, Jazz, Rock, and Hip-Hop styles. Students will learn about the personal life experiences and influences of musical artists to understand the forces which impacted their work. Students will listen to representative compositions and apply proper musical terminology in discussing and critically analyzing musical works. No prior musical knowledge or experience is required for success in this course.

(DESE Code – Music History/Appreciation; 05117)

Academic Course Descriptions • Grade 11

Grade 11 English

ENG 101 • English Composition I Dual Enrollment/Honors • 2 Credits

This course aligns with both the Massachusetts Curriculum Frameworks for English Language Arts and Literacy and with Middlesex Community College departmental requirements. English Composition 1 focuses on developing students' academic writing, close reading, and critical thinking skills. Using a writing process that includes pre-writing, drafting, instructor and peer feedback, and revision, students will produce written essays with arguable thesis statements and appropriate use of standard English. Students will produce a total of 18-24 pages of formal polished writing in three or more source-based essays.

This course must be taken concurrently with English Composition 11 • Honors.

English Department permission is required.

(DESE Code – English/Composition; 01102)

British Literature 11 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This honors-level course of study is designed to further advance students' skills in grammar and writing. Various types of writing include expository, creative, persuasive, and narrative. All writing follows the John Collins Writing Program. Vocabulary building will be part of a larger SAT preparatory unit that includes sentence completion exercises, reading comprehension practice, and SAT-style essay writing. Study skills, as well as note taking skills, are emphasized. The course also features an in-depth exploration and practice of literary criticism coupled with a contemporary British poetry unit that develops critical thinking and responding. A sampling of the different schools of literary criticism includes Russian Formalism, American New Criticism, Deconstructionism, and Reader Response Theory. To encourage critical thinking even further, the course includes a unit that addresses the role technology has played and will play in society. The themes in *Frankenstein* serve as discussion starters. Literary pieces studied may include works by Huxley, Orwell, Shelley, Shakespeare, Blake, Wordsworth, Byron, and many contemporary British poets.

This course must be taken concurrently with English Composition 11 • Honors or with Language Arts 11 • College Prep 1.

English Department permission is required.

(DESE Code – British Literature; 01056)

English Composition 11 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This honors-level course features instruction using a variety of types of literature and modes of communication within the context of the experiences and traditions of Great Britain. Classic and contemporary fiction titles as well as pertinent nonfiction selections will be assigned. Literary selections include *Beowulf*, Arthurian Legends, *The Canterbury Tales*, and *The Tempest*. Writing assignments will follow the John Collins Writing Program with Focus Correction Areas, and they will proceed in a pattern of increasing levels of sophistication. In addition to grammar, mechanics, and some PSAT/SAT preparation, emphasis will be placed on literary analysis, research, use of technology, and connections between the studied material and real life. As much as possible, activities will be pursued to integrate the students' experiences and studies in their technical majors.

This course must be taken concurrently with English 101 • English Composition I or with British Literature 11 • Honors.

English Department permission is required.

(DESE Code – English/Composition; 01102)

Academic Course Descriptions • Grade 11

English 11 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course consists of a variety of readings such as novels, short stories, excerpts from novels, dramatic works, and poetry, which explore current and historical issues in American society. Spelling, fundamental grammar, and writing skills will be integral parts of each unit. Students will also continue to practice the John Collins Writing Program, as established and reinforced in freshman and sophomore English courses. Note taking skills, such as Split page/ Reflective notes and the Cornell 2-6-2 method are also emphasized to maximize reading comprehension. Films are also used to accommodate the visual learning style. The works are selected on the basis of their suitability for each class. Major works covered may include: *The Road*, *Fahrenheit 451*, *Brave New World*, and *The Night Thoreau Spent in Jail*.

This course must be taken concurrently with Language Arts 11 • College Prep 1.

(DESE Code – English/Language Arts III; 01003)

Language Arts 11 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course focuses on preparing students for life after high school graduation. Students complete various writing assignments including personal narrative, an essay of comparison, and a vocational career research paper. Composition assignments follow the John Collins Writing Program with Focus Correction Areas. Students will read and analyze Ned Vizzini's autobiography, *Teen Angst? . . . Naahh!*. To end the year, students will learn how to complete both employment and college applications and produce a polished résumé.

This course must be taken concurrently with English 11 • College Prep 1

(DESE Code – English/Language Arts III; 01003)

English 11 • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. The English 11 course concentrates on building students' skills in reading, writing, communication and critical thinking. The course will feature major literary genres including novels, drama, short stories, biography, poetry and various nonfiction pieces. Written responses will follow the John Collins Writing Program. The course will cover four types of writing: narrative, persuasive, descriptive, and expository. Additionally, students will write and reflect on their vocational and technical majors. Students will develop their oral communication skills through daily class discussions both in small and large group settings; there will be class presentations periodically. Students will learn to think critically by analyzing both fiction and nonfiction while making personal connections.

This course must be taken concurrently with Language Arts 11 • College Prep 2.

(DESE Code – English/Language Arts III; 01003)

Language Arts 11 • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course focuses on word study (vocabulary), comprehension, study techniques, composition, vocation-related applied skills, and grammar and usage. These skills are all taught through various short stories and poems. With a primary focus on the short story, students will be able to use literature to make personal connections to everyday life. Poetry is used to enhance the understanding and appreciation of the short story. Interdisciplinary units include: The Civil War, World War II, The Civil Rights Movement, and The Cold War. Students will gain appreciation for literature, and at the same time, gain the necessary skills to write with purpose and clarity.

This course must be taken concurrently with English 11 • College Prep 2.

(DESE Code – English/Language Arts III; 01003)

Academic Course Descriptions • Grade 11

Grade 11 Mathematics

Precalculus for Engineering & Science • Dual Enrollment • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. Topics in preparation for Calculus include the real numbers, functions and their graphs, composition, inverse and circular functions, right triangle trigonometry and applications, exponential and logarithmic functions; the complex numbers, quadratic functions, conic sections, synthetic division, zeros of polynomials, rational functions and their graphs, and matrix solutions to linear systems. A scientific calculator is required.

Prerequisite: by permission of Department Lead
(DESE Code – Pre-Calculus; 02110) **(Advanced)**

Precalculus • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. Topics in preparation for Calculus include the real numbers, functions and their graphs, composition, inverse and circular functions, right triangle trigonometry and applications, exponential and logarithmic functions; the complex numbers, quadratic functions, conic sections, synthetic division, zeros of polynomials, rational functions and their graphs, and matrix solutions to linear systems. A scientific calculator is required.

Prerequisite: by permission of Department Lead
(DESE Code – Pre-Calculus; 02110) **(Advanced)**

Trigonometry • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course covers trigonometric functions, trigonometric identities, formulas, vectors, applied geometric problems, sine wave analysis and complex numbers. Additional preparation in content and technique for the math portion of college entrance exams and the American College Test (ACT) will be offered.

Prerequisite: Algebra 2
(DESE Code – Trigonometry; 02103) **(Advanced)**

Algebra 2 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course continues to prepare a student for college admission. Topics covered are systems of equations, advanced polynomials, functions, fractional numbers, factoring, quadratics, exponentials, and logarithms.

Prerequisite: Geometry
(DESE Code – Algebra II; 02056)

Algebra 2A • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This is the first in a two-year Algebra 2 sequence when successfully followed by Algebra 2B. The course starts with a thorough review of Algebra I topics and continues with new topics including functions and operations with functions, systems of equations and inequalities as well as Matrices. Strong emphasis on problem-solving and real-world applications.

(DESE Code – Algebra II; 02056)

Academic Course Descriptions • Grade 11

Consumer Math • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course is designed to teach financial literacy. They will learn concepts and habits that can be used throughout life beyond high school including credit scores, risk-based lending, checking and savings accounts, installment debt, budgeting, spending and saving, renting, buying a home, organized gambling, impact of taxes as students and later, donating to charities, paying for college, insurance, bankruptcy, investing and retirement.

(DESE Code – Consumer Math; 02157)

Academic Course Descriptions • Grade 11

Grade 11 Science

Physics 1 • Dual Enrollment • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Physics. The first in a two-semester algebra/ trigonometry-based physics sequence. Emphasis is placed on understanding through problem solving and weekly lab work. Topics include measurement systems, motion and kinematics, Newton's laws, momentum, energy, circular motion and gravitation, rotational motion, and simple harmonic motion. The course emphasizes quantitative reasoning, scientific modeling, experimental design, and technical communication, with a strong emphasis on hands-on lab work and experiments.

Successful completion provides students with transferable college credit and a foundation for advanced study in physics, engineering, or related fields. 3 hours lecture/2 hours laboratory.

(DESE Code – Physics; 03151)

Physics 1 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Physics. This course provides a clear and logical introduction to the principles of physics for students with a solid foundation in algebra. Emphasizing conceptual understanding and problem-solving, the curriculum integrates Massachusetts Science and Technology/Engineering standards and prepares students for success on standardized assessments such as the SAT. Students will explore how physics explains real-world phenomena and connects to other disciplines through practical examples and laboratory investigations. Core topics include Measurement and Data Analysis, Motion and Kinematics, Newton's Laws of Motion, Momentum and Energy, and Circular Motion and Gravitation. The course develops skills in quantitative reasoning, modeling, and technical communication, with a strong emphasis on hands-on lab work and experiments.

(DESE Code – Physics; 03151)

Applied Physics 1 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Physics. This course introduces the fundamental principles of technology and their connection to core physics concepts with an emphasis on practical applications. The course is designed for students who prefer hands-on learning or plan to enter the workforce directly after high school. The curriculum combines scientific problem-solving and engineering design with real-world technical tasks, teaching students both the physics concepts and how to apply them in practical, industry-related situations. Students will explore mechanical, fluid, thermal, and electrical systems through unified concepts such as forces and rigging, mechanical advantage, pressure and buoyancy, hydraulics and pneumatics, energy transfer and storage, and circuit design and operation.

(DESE Code – Principles of Technology; 03153)

Chemistry 1 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Chemistry. This course is designed for students planning to attend a 4-year college or university where a high level of understanding of inorganic chemistry is imperative. Major concepts include matter, atomic structure, ion formation, covalent compounds, nomenclature, solutions, the mole, and stoichiometry. Strong emphasis will be placed on laboratory techniques and reporting skills. This course is mathematics-intensive and requires advanced algebra skills.

(DESE Code – Chemistry; 03101)

Academic Course Descriptions • Grade 11

Chemistry 1 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Chemistry. This course is designed for students who intend to go on to a 2 or 4-year college, technical school, or nursing school. Students who would benefit from an in-depth chemistry background in preparation for post-secondary training are encouraged to apply. Concepts to be covered will include matter, atomic structure, ion formation, covalent compounds, nomenclature, chemical reactions, the mole, and acids and bases. Strong emphasis will be placed on laboratory techniques and reporting skills.

(DESE Code – Chemistry; 03101)

Chemistry 1 • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Chemistry. This course provides students with a hands-on approach to the fundamentals of chemistry. Student observations based on laboratory experiments and demonstrations will be addressed in both class and small group discussions. Major topics will include the study of matter, atoms, formation of ions and ionic compounds, molecules, chemical reactions, solutions, and acids and bases. Basic math skills will be introduced to illustrate the significance of mathematics in this field of science.

(DESE Code – Chemistry; 03101)

Academic Course Descriptions • Grade 11

Grade 11 Social Studies

AP United States History • AP • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. A survey and analysis of the history of the United States and its institutions from the end of the Civil War through the 20th century. This course explores the historical, cultural, political, economic, and institutional forces and events that shaped United States during this period. Topics may include the reunification of north and south, western expansion, and the growth of national power in a global context. A Student-led non-partisan civics project is included.

(DESE Code – AP US History; 04104) **(Advanced)**

United States History 2 • Honors • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. United States History 2 is a survey course that addresses themes in our country's history from World War 1 to modern day. The development of analytical thinking and problem-solving skills will be fostered through student research and demonstration through summative assessments such as writing assignments, projects, tests, and class presentations. A Student-led non-partisan civics project is included.

(DESE Code – Modern US History; 04103)

United States History 2 • College Prep 1 • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. This course is designed for college bound students and surveys United States history from World War 1 to modern day. This course provides students with the necessary skills to assess crucial issues in our country's history and the role of the United States in past world events through a wide variety of summative assessments. A Student-led non-partisan civics project is included.

(DESE Code – Modern US History; 04103)

United States History 2 • College Prep 2 • 2 Credits • (CD)

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. This basic United States history course is designed to assist students with improving their overall content knowledge through differentiated and specialized instruction. Students will examine our nation's history from World War 1 to modern day. Students will be expected to arrive at conclusions based on informed judgement and to present their viewpoints in a clear and persuasive manner. A Student-led non-partisan civics project is included.

(DESE Code – Modern US History; 04103)

Academic Course Descriptions • Grade 11

Grade 11 Comprehensive Health And Physical Education

Comprehensive Health and Physical Education • College Prep 1 • 1 Credit

This course will provide students with the knowledge, skills, and motivation to engage in physical activities that promote long-term health and wellness. Emphasizing the importance of regular exercise, movement, and mental well-being, students will explore a variety of physical activities suitable for all fitness levels. In addition to developing physical fitness, the course will focus on fostering habits that contribute to emotional and psychological health, such as stress management techniques and mindfulness practices. This course is perfect for anyone seeking to enhance their overall health and develop a lifelong commitment to wellness.

(DESE Code – Physical Education; 08001)

Team Sports • College Prep 1 • 1 Credit

This highly active PE course is designed to focus on competitive team sports. Emphasis is on sportsmanship, team building skills and respect for rules. The class will be centered around traditional team sports and will give students an opportunity to improve their physical movement skills while learning how to collaborate effectively in competitive environments. The team sports class is designed for students interested in enhancing their athletic skills through team-based competition. In this class, students will engage in a variety of competitive sports, focusing on both individual skill development and team dynamics. Emphasizing strategic play, teamwork, and sportsmanship, students will participate in organized games to refine their abilities. The goal is to foster teamwork, leadership, and a competitive spirit while creating an environment that encourages personal growth, emotional resilience, and physical well-being.

(DESE Code – Physical Education; 08002)

Grade 11 Student Support

Student Learning Center (SLC) • College Prep 1 • 2 Credits

The Student Learning Center is a structured support class designed to help students strengthen the academic and organizational skills needed for success in general education courses. Focus is on developing executive functioning skills such as time management, organization, task initiation, and self-monitoring. Students receive guided support in managing assignments, prioritizing tasks, and improving work completion. Emphasis is placed on fostering independence, self-advocacy, and consistent academic habits. Enrollment in the Student Learning Center is determined through the 504 Team, Student Support Team (SST), or by guidance counselor recommendation based on individual student needs.

(DESE Code – All Subjects; 99999)

Academic Support (AS) • College Prep 1 • 2 Credits

Academic Support is a specialized service that provides targeted instruction to students with Individualized Education Programs (IEPs). This service is delivered in a small group setting and focuses on each student's specific goal areas as outlined in their IEP. The small group environment allows for increased teacher support, frequent check-ins, and individualized feedback. Instruction is differentiated to ensure accessibility and engagement while promoting skill development aligned with grade-level expectations. The program also emphasizes the development of key strategies such as organization, time management, and self-advocacy.

(DESE Code – All Subjects; 99999)

Academic Course Descriptions • Grade 11 Electives

Please Note: All elective courses have minimum enrollment requirements.

World Languages

Spanish 1 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. This beginning Spanish course is an introduction to the Spanish language and Hispanic culture and geography. Emphasis is on confidence-building in elementary conversation.

(DESE Code – Spanish 1; 06101)

Spanish 2 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. Students continue to develop skills learned in Spanish 1 with more emphasis on refinement of oral expression, reading, writing, and culture studies. Students will build on skills mastered in Spanish 1 to increase their comfort level with the language.

(DESE Code – Spanish 2; 06102)

Spanish 3 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. In this intermediate Spanish course students will begin to hone oral, written, and reading comprehension skills. Students are introduced to more advanced grammar with an emphasis on proficiency and communication. There is further study of Hispanic culture with an emphasis on Central and South American countries, and Hispanic- American culture.

(DESE Code – Spanish 3; 06103)

Spanish 4 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. In this advanced Spanish course students will continue to fine-tune speaking, reading, and writing skills. Special emphasis is on Spanish in the workplace: vocabulary building and inter-cultural communication skills. Finer grammar points will be covered including irregular verbs and complex verb tenses, pronoun usage, and idiomatic expressions.

(DESE Code – Spanish 4; 06104)

American Sign Language (ASL) 1 • College Prep 1 • 2 Credits

This course provides an introduction to American Sign Language (ASL), which is the fourth most commonly used language in the US. ASL is a visual way of communicating using hand gestures, facial expressions, and body movements. Areas studied include grammatical structure, conversation, and cultural information related to Deaf Culture and the Deaf Community. Unit topics include school and routines, holidays and vacations, jobs, and deaf storytelling. Class work and homework assignments focus on ASL expressive and receptive skill development, through hands-on activities, partner and group work. External resources include *El Deafo* by Cece Bell and *The HAMMER* directed by Oren Kaplan.

(DESE Code – American Sign Language I; 06801)

Academic Course Descriptions • Grade 11 Electives

American Sign Language (ASL) 2 • College Prep 1 • 2 Credits

Continuing the work began in American Sign Language 1 (ASL 1), students will continue to learn grammar, vocabulary, and culture from the Deaf community. Students will continue to build their foundational knowledge and focus more specifically on conversation and presentational ASL, storytelling, and some ASL slang. Cultural information will focus specifically on the Deaf Culture, how technology assists Deaf in certain jobs, and how Deaf storytelling differs from the Hearing culture. Unit topics will include food and cooking, health, visual storytelling, music and interpretation, art and poetry. Similar to ASL 1, ASL 2 will focus class work and homework expressive and receptive skill development, and continued partner and group work. Proposed external resources are CODA directed by Sian Heder, and an overview of Deaf Poetry (proposed poets: Douglas Ridloff, Raymond Luczak, and Wawa Snipe). (DESE Code – American Sign Language II; 06802)

American Sign Language (ASL) 3 • Honors • 2 Credits

Continuing the work began in American Sign Language 2 (ASL 2), students will continue to learn grammar, vocabulary, and culture from the Deaf community. Students will begin to build more of a sense of the different types of body language and styles of expression that exist in ASL, and the grammatical structures they follow. Cultural information will focus specifically on the Deaf Cultures, views on hearing devices, and how news and communication differ between the Deaf and Hearing cultures. Proposed unit topics are international travel, weather and the environment, the DeafBlind Culture, and the debate over cochlear implants. Similar to ASL 2, ASL 3 will focus class work and homework expressive and receptive skill development, and continued partner and group work. Proposed external resources are THE AUTOBIOGRAPHY OF HELEN KELLER by Helen Keller and SOUND AND FURY directed by Josh Aronson. (DESE Code – American Sign Language III; 06803)

Art

Studio Art • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course offers a choice-based studio environment where students explore their own artistic voice through guided lessons and independent projects. The course encourages creative problem-solving, experimentation with materials, and personal expression. Students will engage with a variety of artistic processes, including drawing, painting, printmaking, mixed media, and digital art, while considering historical, cultural, and aesthetic contexts. A willingness to engage in the creative process is valued over prior experience or technical skill. (DESE Code – Visual Arts-Other; 05199)

Advanced Studio Art • Honors • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This honors-level studio course also meets the national performance standards set by the AP Studio Art program. Rather than a written exam, students will submit portfolios for evaluation at the end of the school year. Designed for students who are deeply committed to the practical experience of art, this course emphasizes portfolio development, presentation, and individual expression through in-depth projects known as “Sustained Inquiries.” Students will complete a balanced portfolio that fulfills the requirements of the College Board AP Studio Art program. This portfolio serves as an essential prerequisite for applying to accredited art schools, colleges, and universities.

Suggested Prerequisites:

- 1-2 years of studio art or
- Instructor permission

Students should expect to dedicate time outside of class to develop their chosen sustained inquiry and meet the rigorous demands of this advanced-level course.

(DESE Code – Visual Arts-Other; 05199)

Academic Course Descriptions • Grade 11 Electives

Photography • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed to introduce high school students to the world of photography by integrating communication skills and artistic proficiencies. Through the lens of photography, students will explore various aspects including camera operation, film and digital technical knowledge, and the aesthetic principles of photography. Students will develop their production skills through hands-on experience with cameras, studio lighting techniques, film development, and digital editing software. They will learn to capture, compose, and edit images effectively, enhancing their ability to communicate visually. By exploring both traditional and digital photographic techniques students develop skills, knowledge and confidence to create, present, respond, and connect to their unique photographic style and voice through practice.

(DESE Code – Photography; 05167)

Music

Keyboard • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed for all students in grades 9-12 who have an interest in playing the piano. This class is appropriate for both beginners and advanced students and is taught within a small group setting. Students do not need a piano or keyboard at home. All the instruments and learning materials will be provided. Students will learn to apply strategies for effective piano practice by studying aptitude-appropriate exercises and pieces from a variety of musical styles. Major topical units include: musical symbols and reading Standard Western Notation, finger independence and technique, time signatures and counting, music theory, and stylistic interpretation.

(DESE Code – Piano; 05108)

Guitar - College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed to teach beginning through advanced students the fundamentals of guitar techniques. All that students need is a strong desire to learn to play! Guitars, tuners, and all learning materials will be provided. Students will acquire a strong foundation in music theory and practice by studying and performing appropriate guitar exercises and written music within a group setting. Areas of study include: proper playing position, tuning, reading music notation and guitar tablature, singular note playing, chord playing, time signatures and counting, and basic guitar maintenance.

(DESE Code – Guitar; 05109)

Music Production • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. Music Production may be taken by any student interested in learning how to create, record, and mix original music. Students will use state-of-the-art audio production software and hardware to apply concepts of song creation, audio recording, signal processing, and mastering. Other topics include microphone techniques, multitrack recording, loop-based music creation, using virtual synthesizer technology and MIDI, and critically assessing sound quality.

(DESE Code – Recording and Production; 05123)

Academic Course Descriptions • Grade 11 Electives

Music History • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. Music History is an elective course for students in grades 9-12 which focuses on aspects of music history, appreciation, and analysis of Classical, Jazz, Rock, and Hip-Hop styles. Students will learn about the personal life experiences and influences of musical artists to understand the forces which impacted their work. Students will listen to representative compositions and apply proper musical terminology in discussing and critically analyzing musical works. No prior musical knowledge or experience is required for success in this course.

(DESE Code – Music History/Appreciation; 05117)

Academic Course Descriptions • Grade 12

Grade 12 English

Early World Literature • Dual Enrollment/Honors • 2 Credits

This course aligns with both the Massachusetts Curriculum Frameworks for English Language Arts and Literacy and with Middlesex Community College departmental requirements. This course introduces students to a survey of major literary works from the classical world through the 16th century. Readings will feature various literary genres and themes, with an emphasis on gaining insights into the foundations of our contemporary global civilization. Selections vary and may include the Bible, ancient Greek drama, Buddhist and Asian philosophies, medieval literature, and major figures such as Lao Tzu, Rumi, Shakespeare and others. English Department permission is required.

(DESE Code – World Literature; 01058)

Dramatic Literature 12 • Honors • 2 Credits

This course aligns with both the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This honors-level course explores the structure and content of dramatic works as well as the evolution of drama from the ancient to the contemporary period. Detailed literary analysis in essay form and creative writing will be required.

Composition assignments will follow the John Collins Writing Program with Focus Correction Areas (FCA). Dramatic presentations are an integral part of the course as students explore the role of the director, set designer, actor, and playwright. Writing, speaking, and research activities will also be linked to students' technical studies. Potential titles include *Prometheus Bound*, *Doctor Faustus*, *No Exit*, and *The Odd Couple*. English Department permission is required.

(DESE Code – Literature of a Genre; 01061)

Adolescent Literature 12 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. English skills are incorporated into this thematic survey course concentrating on the contemporary adolescent experience, as well as the adolescent experience through the decades. Fiction and non-fiction selections explore adolescence as a time of emotional, physical, and psychological growth and development. Numerous writing assignments, under the John Collins Writing Program, reinforce vocabulary, sentence structure, thought synthesis, and organization skills developed throughout high school. A focus on note taking is also integral to the latter. Selections of literature may include: *The Perks of Being a Wallflower*, *The Marrow Thieves*, *Feed*, and/or *Carrie*.

(DESE Code – Literature of a Theme; 01065)

Urban Readings 12 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. Urban Readings is a course on local infrastructure and social issues in which students increase their awareness through an analysis of an urban area and its adjoining suburbs. The city of Boston and towns of the Minuteman District are studied for their common characteristics. Integrated and applied learning assignments feature an examination of social, political, historical, economic, ethnic, and architectural themes. The introduction of architectural studies into the Urban Readings curriculum has attracted a wide range of students with a variety of vocational interests and academic abilities. The prevalence of historic and architecturally distinct buildings in the towns comprising the Minuteman District constantly reinforces the many aspects of the course of work. Composition assignments follow the Collins Writing Program with Focus Correction Areas (FCA).

(DESE Code – Literature of a Place; 01063)

Academic Course Descriptions • Grade 12

Literature, Media, & Society 12 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course invites students to explore the dynamic world of media by learning to identify, analyze, evaluate, and create a variety of media forms. Through the lens of critical and creative thinking, students examine how media outlets such as film, television, advertising, and social media shape public perception and influence behavior. Emphasizing a hands-on, project-based approach, the course engages students in activities like creating a podcast discussion if social media should be regulated, analyzing a cinematic scene for codes and conventions, and developing a final project that markets a parody product to a specific demographic.

(DESE Code – Literature – Other; 01099)

Literature, Media, & Society 12 • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course invites students to explore the dynamic world of media by learning to identify, analyze, evaluate, and create a variety of media forms. Through the lens of critical and creative thinking, students examine how media outlets such as film, television, advertising, and social media shape public perception and influence behavior. Emphasizing a hands-on, project-based approach, the course engages students in activities like creating a podcast discussion if social media should be regulated, analyzing a cinematic scene for codes and conventions, and developing a final project that markets a parody product to a specific demographic.

(DESE Code – Literature – Other; 01099)

Language Arts 12 • College Prep 2 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for English Language Arts and Literacy. This course focuses on preparing students for a professional life after high school graduation. Skill building activities are applied to personal and career-oriented reading and writing. A web-based career exploration is followed by an exploration of the entire job procurement process: filling out employment applications, writing letters of application and follow-up emails, written/oral preparation for a job interview resulting in a mock interview with the instructor, writing letters of resignation. Students will also continue to build appreciation of reading in and out of the classroom through assigned and independent reading, and through expository writing. Emphasis is placed on the use of the John Collins Writing Program.

(DESE Code – English/Language Arts IV; 01004)

Academic Course Descriptions • Grade 12

Grade 12 Mathematics

Calculus • AP • 4 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. Topics include a review of conics and trigonometric functions and their graphs, properties of limits, continuity, derivatives of algebraic trigonometric, logarithmic, and exponential functions, implicit differentiation, the Mean Value Theorem, related rates, the first and second derivative tests, velocity and acceleration, curve sketching and optimization, Newton's Method, antiderivatives: integration by substitution; area, sigma notation and Riemann sums, the Fundamental Theorem of Calculus, and numerical integration techniques.

Prerequisite: PreCalculus and permission of Math Department Lead.

(DESE Code – AP Calculus AB; 02124) **(Advanced)**

Calculus • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. Topics include a review of conics and trigonometric functions and their graphs, properties of limits, continuity, derivatives of algebraic trigonometric, logarithmic, and exponential functions, implicit differentiation, the Mean Value Theorem, related rates, the first and second derivative tests, velocity and acceleration, curve sketching and optimization, Newton's Method, antiderivatives: integration by substitution; area, sigma notation and Riemann sums, the Fundamental Theorem of Calculus, and numerical integration techniques.

Prerequisite: PreCalculus and permission of Math Department Lead.

(DESE Code – Pre-Calculus; 02110) **(Advanced)**

Advanced Algebra w/ Trigonometry • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course is an in-depth study of the real numbers, functions and their graphs, quadratic functions, rational functions and their graphs, right triangle trigonometry and applications, trigonometric function, sine wave analysis, and complex numbers. Additional preparation in content and technique for the math portion of college entrance exams and the American College Test will be offered. A scientific calculator is required.

Prerequisite: Algebra 2

(DESE Code – Trigonometry/Algebra; 02106) **(Advanced)**

Algebra 2B • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course will be a continuation of Algebra 2A. Successful completion of this course and Algebra 2A will be the equivalent of college prep (level 2) Algebra 2. Topics will include review of linear equations, quadratic functions, exponential and logarithmic functions, polynomial functions as well as an introduction to trigonometry and probability. Continued emphasis on problem solving and applications.

(DESE Code – Algebra II; 02056)

Business Math • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Mathematics. This course develops a comprehensive curriculum with integrated mathematics. Topics covered are business planning and scheduling, payroll, taxation, finance, benefits, loans, investments, and Financial Literacy computer-based program, EverFi. This course will be offered to seniors who may be interested in a business-oriented college program and for those who wish to consider eventually operating their own business.

(DESE Code – Business; 02155)

Academic Course Descriptions • Grade 12

Grade 12 Science

Physics 2 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Physics. This course builds on the foundation established in Honors Physics I and is designed to deepen students' understanding of core physical principles while further developing problem-solving skills. Major topics include wave theory, sound, static and current electricity, electromagnetism, and thermodynamics. Students will also have expanded opportunities to design and implement laboratory procedures, preparing them for the rigor of college-level science coursework.

Prerequisite for this course is the successful completion of Physics 1 or permission of the instructor.

(DESE Code – Physics - Advanced Studies; 03152) **(Advanced)**

Technical Physics • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Physics. In this course, students will explore physics concepts through the study of rate and resistance in four fundamental systems: mechanical, fluid, electrical, and thermal. Investigations will emphasize both theoretical understanding and practical applications. Laboratory work will include activities such as timing rotational motion, measuring fluid flow rates (direct and indirect), analyzing series and parallel circuits, calculating electrical costs, studying brake pad friction, measuring air resistance, and examining the operation of motors and pumps. Mathematical skills relevant to these topics will be addressed in detail. Strong emphasis will be placed on laboratory techniques, experimental design, and clear, accurate reporting.

(DESE Code – Conceptual Physics; 03161)

Chemistry 1 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Chemistry. This course is designed for students planning to attend a 4-year college or university where a high level of understanding of inorganic chemistry is imperative. Major concepts include matter, atomic structure, ion formation, covalent compounds, nomenclature, solutions, the mole, and stoichiometry. Strong emphasis will be placed on laboratory techniques and reporting skills. This course is mathematics-intensive and requires advanced algebra skills.

(DESE Code – Chemistry; 03101)

Chemistry 2 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Chemistry. This course is a continuation of Chemistry 1 at the Honors level. Topics covered will include solutions and solubility, acids and bases, electrochemistry, radioactivity and nuclear chemistry, and a brief introduction to organic nomenclature. Students will develop strong lab skills including data collection and reporting and be introduced to reading and synthesizing scientific literature from academic peer-reviewed sources. Prerequisite for this course is the successful completion of Chemistry 1 or permission of the instructor.

(DESE Code – Chemistry Advanced Studies; 03102) **(Advanced)**

Chemistry 2 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Chemistry. This is a continuation of Chemistry I. Students will explore thermochemistry, gases and condensation, solubility of compounds in water, acids and bases, electrochemistry, and a brief introduction to organic chemistry in a hands-on laboratory environment. Strong emphasis will be placed on laboratory techniques and reporting skills.

Prerequisite for this course is the successful completion of Chemistry 1 or permission of the instructor.

(DESE Code – Chemistry Advanced Studies; 03102) **(Advanced)**

Academic Course Descriptions • Grade 12

Introduction to Anatomy & Physiology • Honors • 2 Credits

This course supports the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Biology and the Massachusetts Curriculum Framework for Health Assisting. Students will develop a strong foundation in anatomical terminology and explore the structure and function of cells, tissues, and major organ systems, including skeletal, muscular, circulatory, respiratory, digestive, reproductive, and nervous systems. Through hands-on activities and laboratory investigations, including the dissection of mammalian organs, students will gain practical experience that reinforces theoretical concepts. Emphasis is placed on understanding how body systems interact to maintain homeostasis and how this knowledge applies to health careers. This course is ideal for students interested in health sciences, nursing, or medical technology pathways.

Prerequisite: Successful completion of Biology I
(DESE Code - Anatomy and Physiology; 03053)

College Nutrition • Honors • 2 Credits

This course supports the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Biology. This honors-level course prepares students for college study in nutrition and health sciences. Topics include macromolecules, vitamins and minerals, and healthy eating patterns. Students will investigate the structure and function of the digestive system, along with common digestive disorders, and apply principles of Medical Nutrition Therapy (MNT) to real-world case studies. Students explore nutrition across the lifespan (pregnancy through aging), sports nutrition, and the effects of drugs and alcohol. Honors students complete advanced projects, analyze scientific literature, and apply nutrition concepts to real-world case studies, including designing diets for specific health conditions and dietary restrictions.

Prerequisites: Recommendation from a junior-year science teacher and completion of Biology and Chemistry or Physics.
(DESE Code - Health and Life Management; 58057)

Nutrition & The Human Body • College Prep 2 • 2 Credits

This course supports the Massachusetts Curriculum Frameworks for Science and Technology/Engineering; Biology. This course introduces the fundamentals of nutrition and its role in human health. Students study macromolecules, vitamins and minerals, healthy eating patterns, and the digestive system. Additional topics include basic sports nutrition, nutrition across the lifespan, the effects of drugs and alcohol, and cultural food practices around the world. The course emphasizes practical skills such as building balanced meals and making informed food choices for lifelong health.

(DESE Code - Health and Life Management; 58057)

Academic Course Descriptions • Grade 12

Grade 12 Social Studies

Introduction to Psychology • Dual Enrollment • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. This course introduces students to the scientific study of the mind and behavior and to the applications of psychological theory to life. Topics include research methods; biopsychology; lifespan development; memory; learning; social psychology; personality; and psychological health and disorders. This course will establish a foundation for subsequent study in psychology.

(DESE Code – Psychology; 04254)

Introduction to Psychology • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. This course will provide an overview of the history of psychology. The course will introduce those figures who have influenced the field of psychology, such as Freud, Bandura, Pavlov, and others. Students will be exposed to the areas of human development, intelligence, social behavior, research, testing, and personality. The format of the course will include lectures, interactive discussions, and group work. The students will be responsible for various individual and group projects.

(DESE Code – Psychology; 04254)

The Modern Era • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. Students will engage in a comprehensive study of Western and Eastern cultures and their presence and impact on the modern world. This course will include an in-depth analysis of social, economic, and political changes and events from the dramatic revolutions marking the early nineteenth century to the continually evolving events of the present day. Students will gain a global perspective while concentrating on reading, interpreting, and analyzing history's means and motives in this level one course. Department lead permission is required.

(DESE Code – Social Sciences and History–Other; 04999)

United States History & the Cinema • College Prep 1 • 2 Credits

This course aims to bring the study of history to life through the use of film. Students will analyze motion pictures, newsreels, and documentaries for their accuracy and the effect they had on their times. The focus of this course will be on history and how movies have treated famous historical events. Students will be responsible for numerous reports and projects.

(DESE Code – Social Sciences and History – Other; 04999)

Civics • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. This course is designed to teach students the rights and responsibilities of citizenship in the twenty-first century. The course will examine, evaluate and interpret the complete frameworks of the United States legal system through required texts and case law. Topics will also include consumer law, personal finance law, and litigation providing a foundation for further study in areas such as criminal justice, criminology or legal counsel.

(DESE Code – Civics; 04161)

Academic Course Descriptions • Grade 12

Civics • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for History and Social Science. This course is designed to teach students the rights and responsibilities of citizenship in the twenty-first century. The course will examine federal, state, and local laws, rights and obligations of citizens, and consequences of lawful and unlawful actions. Topics will also include consumer awareness, personal finances, and the laws and regulations pertaining to specific vocational areas.

(DESE Code – Civics; 04161)

Academic Course Descriptions • Grade 12

Grade 12 Comprehensive Health And Physical Education

Comprehensive Health and Physical Education • College Prep 1 • 1 Credit

This course provides students with the knowledge, skills, and motivation to engage in physical activities that promote long-term health and wellness. Emphasizing the importance of regular exercise, movement, and mental well-being, students will explore a variety of physical activities suitable for all fitness levels. In addition to developing physical fitness, the course will focus on fostering habits that contribute to emotional and psychological health, such as stress management techniques and mindfulness practices. This course is perfect for anyone seeking to enhance their overall health and develop a lifelong commitment to wellness.

(DESE Code – Physical Education; 08001)

Team Sports • College Prep 1 • 1 Credit

This highly active PE course is designed to focus on competitive team sports. Emphasis is on sportsmanship, team building skills and respect for rules. The class will be centered around traditional team sports and will give students an opportunity to improve their physical movement skills while learning how to collaborate effectively in competitive environments. The team sports class is designed for students interested in enhancing their athletic skills through team-based competition. In this class, students will engage in a variety of competitive sports, focusing on both individual skill development and team dynamics. Emphasizing strategic play, teamwork, and sportsmanship, students will participate in organized games to refine their abilities. The goal is to foster teamwork, leadership, and a competitive spirit while creating an environment that encourages personal growth, emotional resilience, and physical well-being.

(DESE Code – Physical Education; 08002)

Grade 12 Student Support

Student Learning Center (SLC) • College Prep 1 • 2 Credits

The Student Learning Center is a structured support class designed to help students strengthen the academic and organizational skills needed for success in general education courses. Focus is on developing executive functioning skills such as time management, organization, task initiation, and self-monitoring. Students receive guided support in managing assignments, prioritizing tasks, and improving work completion. Emphasis is placed on fostering independence, self-advocacy, and consistent academic habits. Enrollment in the Student Learning Center is determined through the 504 Team, Student Support Team (SST), or by guidance counselor recommendation based on individual student needs.

(DESE Code – All Subjects; 99999)

Academic Support (AS) • College Prep 1 • 2 Credits

Academic Support is a specialized service that provides targeted instruction to students with Individualized Education Programs (IEPs). This service is delivered in a small group setting and focuses on each student's specific goal areas as outlined in their IEP. The small group environment allows for increased teacher support, frequent check-ins, and individualized feedback. Instruction is differentiated to ensure accessibility and engagement while promoting skill development aligned with grade-level expectations. The program also emphasizes the development of key strategies such as organization, time management, and self-advocacy.

(DESE Code – All Subjects; 99999)

Academic Course Descriptions • Grade 12 Electives

Please Note: All elective courses have minimum enrollment requirements.

World Languages

Spanish 1 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. This beginning Spanish course is an introduction to the Spanish language and Hispanic culture and geography. Emphasis is on confidence-building in elementary conversation.

(DESE Code – Spanish 1; 06101)

Spanish 2 • College Prep 1 • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. Students continue to develop skills learned in Spanish 1 with more emphasis on refinement of oral expression, reading, writing, and culture studies. Students will build on skills mastered in Spanish 1 to increase their comfort level with the language.

(DESE Code – Spanish 2; 06102)

Spanish 3 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. In this intermediate Spanish course students will begin to hone oral, written, and reading comprehension skills. Students are introduced to more advanced grammar with an emphasis on proficiency and communication. There is further study of Hispanic culture with an emphasis on Central and South American countries, and Hispanic- American culture.

(DESE Code – Spanish 3; 06103)

Spanish 4 • Honors • 2 Credits

This course aligns with the Massachusetts Curriculum Framework for World Languages. In this advanced Spanish course students will continue to fine-tune speaking, reading, and writing skills. Special emphasis is on Spanish in the workplace: vocabulary building and inter-cultural communication skills. Finer grammar points will be covered including irregular verbs and complex verb tenses, pronoun usage, and idiomatic expressions.

(DESE Code – Spanish 4; 06104)

American Sign Language (ASL) 1 • College Prep 1 • 2 Credits

This course provides an introduction to American Sign Language (ASL), which is the fourth most commonly used language in the US. ASL is a visual way of communicating using hand gestures, facial expressions, and body movements. Areas studied include grammatical structure, conversation, and cultural information related to Deaf Culture and the Deaf Community. Unit topics include school and routines, holidays and vacations, jobs, and deaf storytelling. Class work and homework assignments focus on ASL expressive and receptive skill development, through hands-on activities, partner and group work. External resources include *El Deafo* by Cece Bell and *The HAMMER* directed by Oren Kaplan.

(DESE Code – American Sign Language I; 06801)

Academic Course Descriptions • Grade 12 Electives

American Sign Language (ASL) 2 • College Prep 1 • 2 Credits

Continuing the work began in American Sign Language 1 (ASL 1), students will continue to learn grammar, vocabulary, and culture from the Deaf community. Students will continue to build their foundational knowledge and focus more specifically on conversation and presentational ASL, storytelling, and some ASL slang. Cultural information will focus specifically on the Deaf Culture, how technology assists Deaf in certain jobs, and how Deaf storytelling differs from the Hearing culture. Unit topics will include food and cooking, health, visual storytelling, music and interpretation, art and poetry. Similar to ASL 1, ASL 2 will focus class work and homework expressive and receptive skill development, and continued partner and group work. Proposed external resources are CODA directed by Sian Heder, and an overview of Deaf Poetry (proposed poets: Douglas Ridloff, Raymond Luczak, and Wawa Snipe). (DESE Code – American Sign Language II; 06802)

American Sign Language (ASL) 3 • Honors • 2 Credits

Continuing the work began in American Sign Language 2 (ASL 2), students will continue to learn grammar, vocabulary, and culture from the Deaf community. Students will begin to build more of a sense of the different types of body language and styles of expression that exist in ASL, and the grammatical structures they follow. Cultural information will focus specifically on the Deaf Cultures, views on hearing devices, and how news and communication differ between the Deaf and Hearing cultures. Proposed unit topics are international travel, weather and the environment, the DeafBlind Culture, and the debate over cochlear implants. Similar to ASL 2, ASL 3 will focus class work and homework expressive and receptive skill development, and continued partner and group work. Proposed external resources are THE AUTOBIOGRAPHY OF HELEN KELLER by Helen Keller and SOUND AND FURY directed by Josh Aronson. (DESE Code – American Sign Language III; 06803)

Art

Studio Art • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course offers a choice-based studio environment where students explore their own artistic voice through guided lessons and independent projects. The course encourages creative problem-solving, experimentation with materials, and personal expression. Students will engage with a variety of artistic processes, including drawing, painting, printmaking, mixed media, and digital art, while considering historical, cultural, and aesthetic contexts. A willingness to engage in the creative process is valued over prior experience or technical skill. (DESE Code – Visual Arts-Other; 05199)

Advanced Studio Art • Honors • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This honors-level studio course also meets the national performance standards set by the AP Studio Art program. Rather than a written exam, students will submit portfolios for evaluation at the end of the school year. Designed for students who are deeply committed to the practical experience of art, this course emphasizes portfolio development, presentation, and individual expression through in-depth projects known as “Sustained Inquiries.” Students will complete a balanced portfolio that fulfills the requirements of the College Board AP Studio Art program. This portfolio serves as an essential prerequisite for applying to accredited art schools, colleges, and universities.

Suggested Prerequisites:

- 1-2 years of studio art or
- Instructor permission

Students should expect to dedicate time outside of class to develop their chosen sustained inquiry and meet the rigorous demands of this advanced-level course.

(DESE Code – Visual Arts-Other; 05199)

Academic Course Descriptions • Grade 12 Electives

Photography • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed to introduce high school students to the world of photography by integrating communication skills and artistic proficiencies. Through the lens of photography, students will explore various aspects including camera operation, film and digital technical knowledge, and the aesthetic principles of photography. Students will develop their production skills through hands-on experience with cameras, studio lighting techniques, film development, and digital editing software. They will learn to capture, compose, and edit images effectively, enhancing their ability to communicate visually. By exploring both traditional and digital photographic techniques students develop skills, knowledge and confidence to create, present, respond, and connect to their unique photographic style and voice through practice.

(DESE Code – Photography; 05167)

Music

Keyboard • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed for all students in grades 9-12 who have an interest in playing the piano. This class is appropriate for both beginners and advanced students and is taught within a small group setting. Students do not need a piano or keyboard at home. All the instruments and learning materials will be provided. Students will learn to apply strategies for effective piano practice by studying aptitude-appropriate exercises and pieces from a variety of musical styles. Major topical units include: musical symbols and reading Standard Western Notation, finger independence and technique, time signatures and counting, music theory, and stylistic interpretation.

(DESE Code – Piano; 05108)

Guitar - College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. This course is designed to teach beginning through advanced students the fundamentals of guitar techniques. All that students need is a strong desire to learn to play! Guitars, tuners, and all learning materials will be provided. Students will acquire a strong foundation in music theory and practice by studying and performing appropriate guitar exercises and written music within a group setting. Areas of study include: proper playing position, tuning, reading music notation and guitar tablature, singular note playing, chord playing, time signatures and counting, and basic guitar maintenance.

(DESE Code – Guitar; 05109)

Music Production • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. Music Production may be taken by any student interested in learning how to create, record, and mix original music. Students will use state-of-the-art audio production software and hardware to apply concepts of song creation, audio recording, signal processing, and mastering. Other topics include microphone techniques, multitrack recording, loop-based music creation, using virtual synthesizer technology and MIDI, and critically assessing sound quality.

(DESE Code – Recording and Production; 05123)

Academic Course Descriptions • Grade 12 Electives

Music History • College Prep 1 • 1 Credit

This course aligns with the Massachusetts Curriculum Framework for Arts. Music History is an elective course for students in grades 9-12 which focuses on aspects of music history, appreciation, and analysis of Classical, Jazz, Rock, and Hip-Hop styles. Students will learn about the personal life experiences and influences of musical artists to understand the forces which impacted their work. Students will listen to representative compositions and apply proper musical terminology in discussing and critically analyzing musical works. No prior musical knowledge or experience is required for success in this course.

(DESE Code – Music History/Appreciation; 05117)

Career & Technical Education

Freshmen Exploratory

Many students enter Minuteman High School with a strong sense of the career or technical program they wish to pursue, while others are still exploring their interests. To support all learners, Minuteman High School offers a comprehensive Freshman Exploratory Program for every ninth-grade student.

This program provides students with the opportunity to explore each of Minuteman's nineteen (19) career and technical majors through a structured rotation. By experiencing a variety of programs firsthand, students are able to make informed decisions about the pathway that best aligns with their interests, strengths, and long-term goals.

At the conclusion of the exploratory cycle, students complete a career evaluation with their guidance counselor and select their top program preferences.

Throughout the freshman year, students follow a rotating schedule that balances academic and technical learning. English and mathematics are taught daily, while other academic and technical courses alternate weekly. For example, students spend one week in academic classes followed by one week in their career/technical program. This schedule continues throughout their time at Minuteman, ensuring a well-rounded and engaging educational experience.

Cooperative Education Program

The Cooperative Education Program is designed for junior and senior career and technical education students and provides a structured opportunity to gain real-world work experience. Through a coordinated partnership between the school and approved employers, students alternate between classroom instruction and supervised employment in their chosen occupational field. This approach allows students to apply academic and technical skills in authentic workplace settings while developing professional competencies essential for future success.

All cooperative placements are carefully planned and jointly supervised by school personnel and employers to ensure that each experience meaningfully contributes to the student's education, career readiness, and employability. Cooperative education placements occur every other week in alignment with the career and technical rotation schedule.

Program Goals

The goals of the Cooperative Education Program are to:

- Provide students with meaningful, hands-on experience in a real-world work environment
- Offer opportunities to observe, participate in, and evaluate work directly related to their career and technical training
- Expose students to industry-standard personnel, equipment, and workplace procedures beyond the school setting
- Support students in making a successful transition from school to employment or post-secondary education
- Strengthen partnerships between Minuteman High School and local employers to enhance career and technical curriculum
- Encourage employer feedback to continuously improve program quality and instructional practices
- Foster collaboration among education, business, and industry partners to prepare students for successful entry into the workforce

CAREER & TECHNICAL EDUCATION

Additional information regarding the Cooperative Education Program may be obtained from the Cooperative Education Coordinator.

Articulation Agreements

Articulation agreements are formal partnerships between Minuteman High School and postsecondary institutions designed to create seamless career and technical education pathways for students. Through close collaboration, high school educators and college faculty align curriculum and coursework to ensure students meet both secondary and postsecondary program requirements.

Students who successfully complete approved high school coursework aligned with these agreements may be eligible to earn college credit or course waivers. This opportunity allows students to reduce the time and cost required to complete postsecondary education while gaining a strong academic and technical foundation.

Career Academies & Pathways

Engineering, Construction & Trades Academy

Communications Media Pathway

- Computer Science & Cybersecurity
- Design & Visual Communications
- Multimedia Production

Trades & Transportation Pathway

- Automotive Technology
- Carpentry
- Electrical Wiring
- Plumbing & Heating

Engineering & Production Pathway

- Advanced Manufacturing
- Engineering, Robotics & Automation
- Metal Fabrication & Welding

Life Sciences & Services Academy

Agriculture, Environmental & Life Sciences Pathway

- Biotechnology
- Environmental Science
- Horticulture & Plant Science
- Veterinary Science

Health, Hospitality & Human Services Pathway

- Cosmetology
- Culinary Arts
- Early Education & Teaching
- Health Assisting

Communications Media Pathway

Computer Science & Cybersecurity

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Computer Science & Cybersecurity Program prepares students to become solution-driven, security-minded and process-focused problem-solvers, skills needed to thrive in today's Computer Science and Cybersecurity industries.

Students explore multiple computer science and cybersecurity disciplines with a strong focus on providing students with the skills needed for IT careers, programming and web development, computer maintenance, web and graphic design, 3D animation, and game design. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Computer Science & Cybersecurity Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, CompTIA ITF+ certificate course, Certiport IT Specialist Certification in: HTML and CSS, JavaScript, Python, Java, AP Computer Science Principles (CSP) and AP Computer Science A (CSA) exams for college credits.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Software Developer, Web Developer, Information Security Analyst, Network Security Technician, IT Support Specialist and more.

****See Dual Enrollment Courses offered through CTE for additional coursework**

(DESE Code Computer Programming/Programmer; 110201)

Design & Visual Communications

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Design & Visual Communications Program prepares students to become brand-focused, imaginative and process-focused problem-solvers, skills needed to thrive in today's design and visual communication industries.

Students explore multiple design and visual communications disciplines with a strong focus on design elements, design principles, color theory, typography, drawing, video editing, web design, animation, user experience design and digital photography. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Design and Visual Communications Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, CareerSafe Cyber Safety Awareness, and Adobe Certifications (Photoshop, Illustrator, InDesign, Animate, After Effects, Premiere, Express and Acrobat).

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Graphic Designer, Web Designer, Digital Media Specialist, Social Media Content Creator, Illustrator and more.

(DESE Code Design and Visual Communications; 500401)

Communications Media Pathway

Multimedia Production

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Multimedia Production Program prepares students to become creative, technically proficient, and process-focused problem-solvers, skills needed to thrive in today's multimedia production industries.

Students explore multiple multimedia production disciplines with a strong focus on media entertainment and technology, including TV, film, journalism, video and live production, interactive media, and animation. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Multimedia Production Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, Adobe Certified Professional (Visual Effects and Motion Graphics using Adobe After Effects) DaVinci Resolve Certified (Editing, Colorist, Sound Editor), eSet Basic Terms Safety, Lighting, Rigging, Projections and Audio, and Apple Certified Pro: Final Cut Pro X.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Video Editor, Cinematographer, Camera Operator, Post-Production Specialist, Sound Technician, Lighting Technician and more.

(DESE Code Radio and Television; 090701)

Trades & Transportation Pathway

Automotive Technology

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Automotive Technology Program prepares students to become diagnostic driven, mechanically adept and process-focused problem-solvers, skills needed to thrive in today's automotive technology industries.

Students explore multiple automotive technology disciplines with a strong focus on Automotive Service Excellence (ASE), vehicle maintenance, ordering parts, customer service, and billing estimates. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethics.

Students enrolled in Minuteman's Automotive Technology Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, Automotive Service Excellence (ASE) student-level exams, AC Delco Online Training, 609 Refrigerant Handlers License, Ford Automotive Career Exploration (ACE) Online Training, Mass. Hot Work and Mechanical Pollution Prevention and Hazardous Materials for Auto Dealers.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as an Automotive Machinist, Automotive Technician, Field Engineer, Heavy Equipment Technician, Parts Specialist, Service Support & Management, Systems Specialist Technician and more.
(DESE Code Automobile/Automotive Mechanics Technology; 470604)

Carpentry

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Carpentry Program prepares students to become safety-conscious, structurally minded and process-focused problem-solvers, skills needed to thrive in today's carpentry industries.

Students explore multiple carpentry disciplines with a strong focus on the safe use of tools, precision measuring and cutting, interpreting blueprints, installation (windows, kitchens, and baths) and framing (floors, walls, stairs, roofs, and siding). Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Carpentry Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour Construction Industry, 1 year's credit towards Construction Supervisor's License, Mass. Hot Work Certification, CPR Certification.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Carpenter Apprentice, Construction Laborer, Finish Carpenter, Home Builder, Union Carpenter, Furniture Builder and more.
(DESE Code Carpentry/Carpenter; 460201)

Trades & Transportation Pathway

Electrical Wiring

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Electrical Wiring Program prepares students to become safety-conscious, diagnostic-drive and process-focused problem-solvers, skills needed to thrive in today's electrical wiring industries.

Students explore multiple electrical wiring disciplines with a strong focus on wiring methods (used in commercial, industrial and residential wiring), blueprint reading, current electrical code, and operating principles (motors, transformers, photovoltaic systems and controlling circuits). Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Electrical Wiring Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, up to 1,500 Hours of Electrical Field Experience, Mass. Hot Work Certification, and up to 300 Hours of Electrical Theory.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as Electrician, Electrical Engineer, Journeyman Electrician, Electrical Technician, Electrical Maintenance Technician, Control Systems Technician, Electrical Inspector and more.
(DESE Code Electrician; 460302)

Plumbing & Heating

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Plumbing & Heating Program prepares students to become service-oriented, technically proficient and process-focused problem-solvers, skills needed to thrive in today's plumbing and heating industries.

Students explore multiple plumbing and heating disciplines with a strong focus on gaining hands-on experience with installation and repair of water, waste, gas, and heating systems in both residential homes and commercial buildings. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Plumbing & Heating Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour Construction Industry, MASS Hot Work Certification, earn up to 330 of the required 550 theory hours and 1,700 of the 6,800 practical hours needed to qualify for the Journeyman's exam.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as an Apprentice Plumber, Journeyman Plumber, Construction Manager, Residential Service Plumber and more.
(DESE Code Plumbing Technology/Plumber; 460503)

Engineering & Production Pathway

Advanced Manufacturing

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Advanced Manufacturing Program prepares students to become precision-driven, technically proficient and process-focused problem-solvers, skills needed to thrive in today's advanced manufacturing industries.

Students explore multiple advanced manufacturing disciplines with a strong focus on Computer-Aided Design (CAD), Computer-Aided Manufacturing (CAM), the manufacturing processes, Computer Numerical Control (CNC) machining, and quality assurance. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Advanced Manufacturing Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA10-Hour General Industry, National Institute for Metalworking Skills (NIMS) CNC Mill, Mass. Hot Work and NIMS CNC Lathe.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as an Automation Technician, CAD Drafter, CNC Programmer, Engineering Technician, Machine Operator, Mastercam Programmer, Tool Maker and more.
(DESE Code Advanced Manufacturing Technology; 480510)

Engineering, Robotics and Automation

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Engineering, Robotics and Automation Program prepares students to become innovators, forward-thinkers and process-focused problem-solvers, skills needed to thrive in today's engineering, robotics and automation industries.

Students explore multiple engineering, robotics and automation disciplines with a strong focus on the engineering design process, critical thinking, programming, analyzing data, and developing practical solutions to real-world challenges. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Engineering, Robotics and Automation Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, Project Lead the Way (PLTW) Courses that offer college credit or scholarships, Fluke Multimeter, SolidWorks CSWA, LEED Green Associate, Mass. Hot Work and Festo AC/DC Trainer.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as an Aerospace/Aeronautical Engineer, Automation Technician, Biomedical Engineer, Chemical Engineer, Civil Engineer, Electrical Engineer, Process Control Engineer, Mechanical Engineer and more.

****See PLTW Courses offered through CTE for additional coursework**

(DESE Code Engineering Technology; 150000)

Engineering & Production Pathway

Metal Fabrication & Welding

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Metal Fabrication & Welding Program prepares students to become safety-conscious, precision-focused and process-focused problem-solvers, skills needed to thrive in today's metal fabrication and welding industries.

Students explore multiple metal fabrication and welding disciplines with a strong focus on structural supports/design, practical skill development in metalworking, welding, and fabrication processes. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Metal Fabrication & Welding Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, American Welding Society (AWS) Welder Certification D1.1, Mass. Hot Work Certification.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Welder, Sheet Metal Worker, Metal Fabrication Technician, Custom Metalwork Specialist and more. (DESE Code Precision Metal Working; 480599)

Agriculture, Environmental & Life Sciences Pathway

Biotechnology

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Biotechnology Program prepares students to become analytical, data-driven and process-focused problem-solvers, skills needed to thrive in today's biotechnology industries.

Students explore multiple biotechnology disciplines with a strong focus on sciences of biology, chemistry, physics, engineering, computers, and information technology to develop tools and products for everyday living and future uses. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Biotechnology Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry Healthcare, Bioscience Core Skills Institute (BCSI) Aseptic Technique, Bioscience Core Skills Institute (BCSI) Small Volume Metrology, Bioscience Core Skills Institute (BCSI) Safety: Hazard Assessment, American Heart Association Basic Life Support (BLS).

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as Pharmaceutical Specialist, Laboratory Technician, Scientist, Biomedical Engineer, Chemical Engineer, Research Assistant, Biomanufacturing Professional, Quality Control Supervisor and more.
(DESE Code Biomedical Technology/Technician; 150401)

Environmental Science

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Environmental Science Program prepares students to become curious, impact-driven and process-focused problem-solvers, skills needed to thrive in today's environmental science industries.

Students explore multiple environmental science disciplines with a strong focus on the hands-on study of ecology, aquatic systems, geosciences, and atmospheric sciences, and applying technology to protect human health and the environment. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Environmental Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, OSHA-40 Hour HAZWOPER, Massachusetts Grade II Municipal Wastewater Operator's License (State exam), Massachusetts Treatment I (T1) and Treatment II (T2) Drinking Water Plant Operator License (State exam), Environmental Research Systems Institute (ESRI): Geographic Information System (GIS) Basics.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as an Environmental Scientist, Environmental Technician, Conservation Specialist/Park Ranger, Environmental Compliance Specialist, Environmental Data Analyst, Environmental Consultant and more.
(DESE Code Environmental Engineering Technology; 150507)

Agriculture, Environmental & Life Sciences Pathway

Horticulture & Plant Sciences

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Horticulture & Plant Sciences Program prepares students to become innovative, sustainability-conscious and process-focused problem-solvers, skills needed to thrive in today's horticulture and plant sciences industries.

Students explore multiple horticulture and plant science disciplines with a strong focus on experiences in food and ornamental plant production and propagation, integrated pest management, and greenhouse management. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Horticulture & Plant Science Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour Construction Industry, Horticulture & Plant Science Technology Certificate, Pesticide Applicators License (18 years old to take exam), Hoisting Engineers License (18 years old to take exam), Interlocking Concrete Pavers Institute (ICPI) Certification.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Greenhouse/Nursery Technician, Crop or Plant Production Specialist, Landscape Technician, Arborist, Urban Forestry Technician and more.

(DESE Code Applied Horticulture/Horticulture Operations; 010601)

Veterinary Science

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Veterinary Science Program prepares students to become science-driven, animal-centered and process-focused problem-solvers, skills needed to thrive in today's veterinary science industries.

Students explore multiple veterinary science disciplines with a strong focus on animal care, clinical skills, and workplace readiness. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Veterinary Science Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA10-Hour (Veterinary Specific), Certified Veterinary Assistant (CVA), Fear-Free Certification, Canine and Feline CPR, First Aid, and Advanced Life Support, INDEXX In-House Analyzer Training Certifications.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Veterinary Assistant, Veterinary Technician, Animal Care Technician, Animal Rehabilitation Assistant, Animal Shelter Technician, Human Society Staff Member and more.

(DESE Code Veterinary Science; 010903)

Health, Hospitality & Human Services Pathway

Cosmetology

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Cosmetology Program prepares students to become client-focused, service-driven and process-focused problem-solvers, skills needed to thrive in today's cosmetology industries.

Students explore multiple cosmetology disciplines with a strong focus on learning hair, skin, nail, and makeup techniques while gaining hands-on experience serving real clients in our fully equipped, instructor-supervised salon. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Cosmetology Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, Mass. Cosmetology License, and Barbicide.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Hair Stylist, Color Stylist, Salon Assistant, Nail Technician, Makeup Artist and more.
(DESE Code Cosmetologist; 120401)

Culinary Arts

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Culinary Arts Program prepares students to become quality-focused, guest-centered and process-focused problem-solvers, skills needed to thrive in today's culinary arts industries.

Students explore multiple culinary arts disciplines with a strong focus on training in cooking, baking, safe food handling, and hospitality management through The District Restaurant (a student-operated 75-seat restaurant open to the public). Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Culinary Arts Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, TIPS Alcohol Safety Certification, ServSafe, ProStart Certification, CPR Certification and Allergen Awareness.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Line Cook, Pastry Chef, Baker, Nutritionist, Catering Chef, Restaurant Manager, and more.
(DESE Code Cooking and Related Culinary Arts; 120500)

Health, Hospitality & Human Services Pathway

Early Education & Teaching

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Early Education & Teaching Program prepares students to become compassionate, student-centered and process-focused problem-solvers, skills needed to thrive in today's early education and teaching industries.

Students explore multiple early education and teaching disciplines with a strong focus on studying human development up to age 8 (primarily children under 5), developmental needs, children's literature, teaching, age-appropriate materials and activities. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Early Education & Teaching Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry, Massachusetts Department of Early Education and Care Infant/Toddler and Pre-School Teacher Certification, Save a Life: Recognizing and Responding to Anaphylaxis, American Red Cross Babysitting Certification.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Preschool Teacher, Education Paraprofessional, Coach, Infant/Toddler Teacher, Elementary Teacher, Early Intervention Specialist, Special Education Teacher and more.
(DESE Code Early Education and Teaching; 131210)

Health Assisting

Inspired by the hands-on, industry-aligned foundation of Career and Technical Education, Minuteman High School's Health Assisting Program prepares students to become patient-centered, detail-oriented and process-focused problem-solvers, skills needed to thrive in today's health assisting industries.

Students explore multiple health assisting disciplines with a strong focus on hands-on clinical experience, medical terminology, anatomy, disease pathology, human development, and restorative care. Using state-of-the-art equipment and industry-standard technology, they build technical expertise alongside professional skills such as communication, collaboration, and work ethic.

Students enrolled in Minuteman's Health Assisting Program are eligible for certifications and Industry Recognized Credentials (IRCs) such as but not limited to OSHA 10-Hour General Industry (Healthcare), Massachusetts Board of Registration Certified Nursing Assistant (CNA), Massachusetts Personal and Homecare Aide Training PHCAST, American Heart Association Basic Life Support (BLS), and American Heart Association First Aid Certification.

For families seeking a dynamic, hands-on educational experience that opens doors for students seeking successful employment as a Certified Nursing Assistant (CNA), Home Health Aide (HHA), Private Duty Caregiver, Restorative Care Aide, Hospice or Palliative Care Aide and more.
(DESE Code Health Services/Allied Health/Health Sciences; 510000)

Required CTE Electives

Personal Finance

This course aligns with the Massachusetts Curriculum Frameworks for History and Social Science/Economics. Personal Finance teaches essential financial concepts. Students learn about the everyday cost of living and how to maintain a career, then apply what they've learned through an online simulator. By tracking the personal behaviors and spending habits of a simulated character — such as finding a job, securing an apartment, opening a bank account, and paying taxes — students gain a deeper understanding of real-world financial decision-making. Using an interactive virtual simulator helps strengthen knowledge retention and reinforces key concepts in personal finance, financial literacy, career readiness, and essential life skills. Topics include budgeting and saving; managing a checking account; building and repairing credit; paying taxes; time management and health; finding employment and housing; purchasing a car or home; investing for retirement; and more.
(DESE Code Consumer Economics/Personal Finance; 22210)

Entrepreneurship

The Introduction to Entrepreneurship course is designed to provide high school students with a comprehensive understanding of the principles and practices of entrepreneurship. This course aims to foster an entrepreneurial mindset, encourage creativity, and develop essential skills necessary for success in the business world. Throughout the course, students will explore various aspects of entrepreneurship, including identifying opportunities and developing innovative ideas, understanding market dynamics, and executing Business Plans. Students will also gain valuable insights into the challenges and rewards for starting and managing a business.
(DESE Code Entrepreneurship; 12053)

Digital Literacy

Through an engaging introduction to digital literacy and foundational computer science practices, 9th grade students develop the essential skills needed to stay safe and thrive in an increasingly technology-driven world. Students participate in creating, analyzing, abstracting, communicating, collaborating, connecting, and researching, building essential skills for success in high school and beyond.
(DESE Code Computer and Information Technology; 10003)

Post-Secondary Seminar

This course prepares students for success after high school by developing college, career, and professional skills. Students will explore post-secondary options, set academic and personal goals, build employability and communication skills, and learn strategies for time management and personal responsibility. The course also includes career exploration, financial aid and college planning, resume and cover letter writing, interview preparation, and other workplace readiness activities designed to support successful transitions to college, careers, or other post-secondary pathways.
(DESE Code Seminar; 22106)

PLTW Courses through Engineering

Introduction to Engineering Design

Grade 9

This course teaches students the basics of Engineering, starting with the Engineering Design Process, Engineering Design Briefs and different types of sketching techniques used in industry. Students will also learn basic CAD and drafting techniques, metrology, and proper dimensioning of parts. The year concludes with teaching students about the importance of reverse engineering and basic motion using gear trains and cams. Each section of this course has hands-on projects and assignments to show the students both theory and practical applications of Engineering. (DESE Code – PLTW Introduction to Engineering Design; 10017) **(Advanced)**

Principles of Engineering

Grade 10

This course focuses on the math and science behind Engineering, specifically, calculations and theories of simple machines, gear trains, and conversion from electrical energy to mechanical motion. Theories of electrical circuits, tension & compression of structural members, basic material science, and hydraulics & pneumatics are investigated through lectures and hands-on projects. The year concludes with lessons on basic VEX programming and robotic movements. As with all PLTW courses, each section of the course has hands-on projects and assignments to show the students both theory and practical applications of each topic covered. (DESE Code – PLTW Principles of Engineering; 21018) **(Advanced)**

Computer Integrated Manufacturing

Grade 10 & 11

The Computer Integrated Manufacturing course helps students understand factory automation. This course informs students of the basics of C.N.C. machining (G & M codes, Feeds & Speeds) to help convey the process of manufacturing. It also incorporates lessons learned in the Principals of Engineering course, of VEX code programming and robotic movements with C.N.C Machining, to create automated factory cells for manufacturing, assembly and storage of components. By incorporating different aspects of the manufacturing process, this course gives students a basic understanding of how our modern automated factories work. (DESE Code – PLTW Computer Integrated Manufacturing; 21022) **(Advanced)**

Digital Electronics

Grade 11

The Digital Electronics course explores electronic circuits using both basic components and logical components. The course starts with a refresher of resistors and capacitor circuits, then transitions into more complex circuitry using logic gates, truth tables and Boolean algebra. Students learn how to analyze problems and construct truth tables and logical formulas to solve real world electrical situations. Using simulation software, breadboarding techniques and component soldering, students can design, build and test their theoretical solutions. Also discussed in this class are flip/flop circuits, timer circuits, 7 segment display circuits, and multiplexers.

(DESE Code – PLTW Digital Electronics; 21023) **(Advanced)**

Aerospace Engineering

Grade 11

The Aerospace course explores aerodynamic forces, fluid mechanics, material analysis, and orbital mechanics. The course starts with the history of flight and the anatomy of different aircrafts. Students learn basic aircraft control and navigation, understand what material properties are relevant for flight applications, and how to manipulate designs to maximize flight, and the physiology of flight for human factors engineering. Students apply these lessons through glider design and fabrication, simulated airfoil design and fabrication, frame analysis, and model rocket design.

(DESE Code – PLTW Aerospace Engineering; 21019) **(Advanced)**

Dual Enrollment Courses through Computer Science and Cybersecurity

Programming I

Grade 12

In this course, the fundamental constructs of a programming language will be explored in concepts such as: memory, algorithms, data types, operators, simple input/output processing, sequential processing, decision structures, repetition, functions, arrays, and pointers. Course content will be delivered using the C++ programming language.

(DESE Code – C++ Programming; 10154) **(Advanced)**