Secondary Program of Studies

Medford Public Schools
Program of Studies
2023-2024

Secondary Schools

Medford High School & Vocational-Technical High School

Curtis-Tufts School

Medford School Committee

2023

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Secondary Program of Studies

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Secondary Program of Studies

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STATEMENT OF ACCREDITATION

Medford High School is accredited by the New England Association of Schools and Colleges, Inc., a non-governmental, nationally recognized organization whose affiliated institutions include element - ry schools through collegiate institutions offering post-graduate instruction.

Accreditation of an institution by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited school or college is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial, but applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to students who attend the institution.

Secondary Program of Studies

CORE VALUES AND BELIEFS

Collaboration **Engagement** **Integrity** **Critical & Creative Minds**

MISSION STATEMENT

Medford High School encourages and assists all students to become creative and critical thinkers with compassionate hearts who embrace global citizenship.

As a community of lifelong learners, we collaborate and engage with each other to develop and realize our potential. In an inclusive environment of physical safety and emotional security, Medford High School fosters diversity and addresses the needs of the whole child. At Medford High School, educators personalize the educational experience and emphasize the importance of personal integrity as essential to becoming engaged citizens and contributors to their community, nation, and global society.

21st CENTURY LEARNING EXPECTATIONS

- Become self-directed learners.
- Communicate effectively.
- Apply problem-solving skills and critical and creative thinking.
- Use technology appropriately as a tool for learning, collaboration, presentation, research, and design.
- Act with integrity, respect and responsibility toward themselves, others, and the environment.
- Exhibit flexibility and adaptability.
- Collaborate in diverse groups to share knowledge, build consensus, and achieve goals.
- Practice leadership in and service to their community.
- Become contributing citizens in a global society.

NON-DISCRIMINATION POLICY

The Medford Public Schools insures against discrimination in education programs and employment on the basis of race, color, sex, religion, national origin, gender identity, sexual orientation, and disability.

Secondary Program of Studies

Directors/Supervisors/Coordinators

Director of Professional Learning & Student Assessment - Dr. Bernadette Ricciardelli, 489 Winthrop Street • 781-393-2320 bricciardelli@medford.k12.ma.us

Coordinator of World Language - Dr. Vilma Bibeau 489 Winthrop Street • 781-393-2375 vbibeau@medford.k12.ma.us

Coordinator of Fine Arts - Suzanne Fee, 489 Winthrop Street • 781-987-2606 sfee@medford.k12.ma.us

Coordinator of Music - Haley Rello 489 Winthrop Street • 781-987-2606 hrello@medford.k12.ma.us

Director of Technology - Molly Laden, 489 Winthrop Street, 781-391-6917 mladen@medford.k12.ma.us

Director of Mathematics – Faiza Khan, 489 Winthrop Street • 781-393-2214 & 2215 fkhan@medford.k12.ma.us

Director of Humanities - Dr. Nicole Chiesa, 489 Winthrop Street • 781-393-2399 nchiesa@medford.k12.ma.us

Director of Guidance & Behavioral Health - Stacey Schulman, 489 Winthrop Street • 781-393-2281 sschulman@medford.k12.ma.us

Director of Re-engagement - Megan Fidler-Carey, 489 Winthrop Street • 781-393-2102, 2211 mfidlercarey@medford.k12.ma.us

Director of Science - Rocco Cieri - 489 Winthrop Street 781-393-2314 • rcieri@medford.k12.ma.us

Coordinator of Secondary Special Education Programs - Grades 9-12 - Kimberly Clinton • 781-393-2330 kclinton@medford.k12.ma.us

Director of English Language Learners - Paul Teixeira, 489 Winthrop Street • 781-393-2341 pteixeira@medford.k12.ma.us

Director of Athletics/Community Schools - Robert Maloney, 489 Winthrop Street • 781-393-2380 rmaloney@medford.k12.ma.us

Coordinator of Related Services Speech/OT/PT/Vision - Kathryn Cook 489 Winthrop Street • 781-393-2317 kcook@medford.k12.ma.us

Supervisor of Nurses - Avery Hines (RN), 489 Winthrop Street • 781-393-2292

Director of Buildings & Grounds - John McLaughlin, 489 Winthrop Street • 781-393-2374 & 2208 jmclaughlin@medford.k12.ma.us

Director of Physical Education & Health Education/Assistant Athletic Director - Rachel Perry, 489 Winthrop Street • 781-393-2280 rperry@medford.k12.ma.us

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PROGRAM OF STUDIES

2023-2024

COURSE SELECTION

The selection of a student's program of study requires careful consideration on the part of both student and parent. Guidance counselors and teachers are prepared to help both student and parent make a proper selection by engaging them in a review of the student's natural abilities, past scholastic achievement, fulfillment of course prerequisites, and educational and career goals.

During the spring and summer, the administration uses student selections in making informed decisions about staffing and purchases of textbooks and supplies. In most instances, each student will receive a schedule that he or she requested; however, in some cases, a course that he or she requested will not be scheduled because there is insufficient enrollment to justify scheduling a section of the course or because staffing issues apply.

Students are encouraged to challenge themselves academically. For instance, where a student has fulfilled the pre-requisites to take either an Honors or College Prep level course and is uncertain about which course-level to choose, school personnel shall encourage the student to take the more challenging course. During any given school year, a student may take courses that reflect a variety of ability levels. Also, from one year to the next, students may change the ability-level of the courses they select through the established course-selection process in cases where they have met the pre-requisites.[1]

During third quarter, students engage in the course selection process. Parents will also have the ability to approve, comment or change their students' selection in School Brains. After students and parents choose courses, counselors will ensure proper placement based on prerequisites, and students will receive their Course Request Forms sometime in April. These forms will show what

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1 Where class size issues and other conditions apply, the school will need to limit enrollment in Honors and Advanced Placement courses to students who have achieved the exact pre-requisite grade as stated in the program of studies. Under unusual circumstances, for example, we might need to enforce the "A-" pre-requisite and not enroll students who have earned a "B+."

courses students will be scheduled for the new school year. Draft and final schedules will be posted and mailed home during the summer. The guidance department will have set days in the summer to help correct any errors in students' schedules.

During the course-selection process, teachers, curriculum directors, and guidance counselors recommend certain courses for each student, considering his/her classroom preparation, teacher-assigned grades, course pre-requisites, standardized test scores, and other data. Although the student and his/her parent may request that the schedule include courses at a higher or lower level, the only guarantee comes with the student's meeting the pre-requisite.

ADMINISTRATIVE FLEXIBILITY

For logistical reasons, the administration might choose to offer certain courses on a rotating basis, e.g., every other year. The administration might also need to cancel a course, change the frequency with which it meets, or make other changes to this Program of Studies. Where possible, students will be notified of the changes before the beginning of the school year.

GUIDELINES FOR SCHEDULE CHANGE REQUESTS

There are several reasons why requests for schedule changes should not be granted after the school year begins.

The call for higher standards at the national, state, and local levels requires greater accountability. Time and Learning requirements, high-stakes tests and community expectations impact on the course-selection process. Under Time and Learning regulations, every student must carry a full course load to fulfill state requirements.

Changes of courses and/or teachers interrupt continuity of instruction. In changing schedules, not only do students encounter new material and different teaching styles and policies, but they also need to make up days, weeks or months of class work, tests and homework, in addition to fulfill-ing current assignments, thus becoming academically at-risk. Related to continuity of instruction is that, with virtually every course change, the receiving teacher is required to assign to new students equivalent class work, tests and homework and to assess these assignments and to incorporate the

grades from the sending teacher. As a result, the demands that schedule changes place on teachers either usurp time and energy that they would ordinarily devote to the rest of their students or become additional burdens for the teachers.

Schedule changes contradict the integrity of the scheduling process. Each spring, after asking students and parents to complete the course selection process, the curriculum directors and headmaster make staffing recommendations to the Superintendent. Those recommendations are based on the projected number of course-sections needed to schedule the students who request each course. Allowing course changes creates imbalances not only in class sizes among courses of different ability-levels and among courses in different departments, but also in total student enroll-ments among teachers.

Exceptions to the Rule

Although the rule is that no schedule changes will be allowed after the school year begins, there are exceptions to the rule. The following are illustrations of allowable extenuating circumstances that are considered, under most circumstances, to be exceptions to the rule:

- The student's schedule does not include courses that are requirements for graduation.
- The student has selected a course without fulfilling the course pre-requisite.
- The student's schedule includes a course with a teacher who failed that student during a previous school year.
- A course-section is added to or deleted from the master schedule.
- An obvious mistake has been made, and school personnel have a responsibility to take corrective action.
- The student has a documented medical or psychological condition that prevents him or her from continuing with one or more courses.
- The student's family is undergoing a documented crisis that prevents him or her from continuing with one or more courses.
- Changes in a special needs student's Individual Education Plan require changes in the student's schedule.

- A schedule change is needed to accommodate a student with Limited English Proficiency.
- Safety considerations require that a student's schedule be changed.

(In addition, within the first fourteen days of school, changes may be made if a course was added to a student's schedule but the student was not consulted about the course change; or if a student's schedule does not include enough five-credit courses to ensure continued athletic eligibility.)

Non-exceptions

- The student registered for a course even though a teacher or curriculum director had recommended the student for a course at a different ability-level.
- The student requests a lateral change, i.e., a change to a different teacher of the same course.
- The student requests a change of course or teacher when he or she earns a failing grade for a quarter, is in the process of earning a failing grade for a quarter, or is not earning the grade that the student anticipated.
- The student perceives a personality conflict with the teacher, or the parent perceives a personality conflict with the teacher.

Discretionary Exception

- The student registered for a course even though a teacher or curriculum director had recommended the student for a course at a different ability-level. (Under most circumstances, the schedule change would not be allowed. However, a unique set of circumstances could justify the schedule change, but only in cases where the guidance counselor, director of guidance, curriculum director, assistant principal and headmaster agree that the change is necessary.)

CLASSIFICATION OF STUDENTS

A student's homeroom assignment is determined by student classification (freshman, sophomore, junior, and senior). To be promoted to the next class, a student must have secured a minimum number of credits:

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Sophomore Status:	Minimum of 26 credits.
Junior Status:	Minimum of 54 credits.
Senior Status:	Minimum of 80 credits.

The following Promotion Policy adds other specific requirements but does not lessen the above requirements.

PROMOTION POLICY FOR MIDDLE AND HIGH SCHOOL STUDENTS[2]

The promotion policy amends and strengthens the existing promotion policy (above by requiring students who fail mathematics and English to make the subject up in summer school in order to be promoted. Students may be promoted if they fail one subject, as is the current policy; however, the subject they fail cannot be mathematics or English. Exempted from this policy are students in Grades 11 and 12 who have passed MCAS. Specifics of the policy for the various grade levels are as follows:

Students in Grades 6-10

In addition to existing promotion requirements, students must pass **both English and mathematics at each grade level** in order to be promoted to the next grade level. Students who fail mathematics or English must make up the subject in summer school and achieve a passing grade of C- or better if they wish to be promoted to the next grade level. There will be an appeals process for students who do not pass the summer school program.

Students in Grades 11-12

Students in Grades 11 and 12 who have passed MCAS are exempt from the promotion policy guidelines (related to mathematics and English. These students however, must meet the high school requirements for credits in mathematics and English for graduation. For example an eleventh grade student who has passed MCAS in mathematics and fails his/her mathematics course is promoted and will graduate on the condition that at the end of grade 12 all the required graduation credits for mathematics have been met.

Students in grades 11 and 12 who have not passed MCAS and fail a mathematics or English.

2 This policy was approved by the Medford School Committee in September 2004.

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STATE & DISTRICT REQUIREMENTS FOR GRADUATION

The total number of credits required for eligibility of a high school diploma is 112, beginning with the class of 2002. Those 112 credits include, but are not limited to, the following:

A.	Four years of English	Take and Pass
B.	Four years of Wellness	Take and Pass
C.	Four years of Mathematics (including Geometry and Algebra II)	Take and Pass
D.	Three years of Science (including Biology and Chemistry)	Take and Pass
E.	Three years of Social Studies	Take and Pass
F.	Two years of World Language (if not enrolled in a CTE program)*	Take and Pass
G.	One course in Fine Arts	Take and Pass
H.	Four years of community service (60 hours required, 15 per year)	
I.	Meeting Expectation scores on the English Language Arts and Mathematics MCAS tests	
J.	Meeting Expectations on the Science and Technology MCAS test.	
K.	Completion of Civics Learning Project	

*Course requirements differ for students who are enrolled in Career Technical Education. In lieu of F & G above, a student's credits should include four years in an approved Career Technical Education (CTE) Program.

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ACADEMIC ELIGIBILITY FOR ATHLETICS

In choosing courses for the coming school year, students should consider the school's academic requirements for athletic eligibility. To be eligible at the start of the 2020-2021 school year, students must have final passing grades from the 2019-2020 school year in the equivalent of four traditional, yearlong, major English courses. To be eligible for the second marking period, students must satisfy the academic standard in the equivalent of four traditional, year-long, major English courses during the first marking period. It is at this point in the year that the academic eligibility is certified only on the previous marking period and not cumulatively. Only fall eligibility remains cumulative. In addition, to be academically eligible for athletics during a specific marking period, students need to be enrolled at that time in the equivalent of four traditional, yearlong, major English courses.

Any five-credit core subject course is considered to be the equivalent of a yearlong, major course.

SUMMER SCHOOL

Only students who earn a final grade of "E" (50-59% are eligible to attend summer school. Students who earn a final grade of "F" (0-49% are not eligible to attend summer school and must repeat applicable courses during the regular school day during the regular school year. The Principal will consider appeals based on extenuating circumstances. (See the Medford High School Student Handbook for more information about Summer School policies and regulations.

DUAL ENROLLMENT & ARTICULATION AGREEMENTS

Qualified juniors and seniors are encouraged to take advantage of the Massachusetts Dual Enrollment Program. When funding is available, this program allows students to take college courses free of charge at Bunker Hill Community College. College and/or high school credits are received for all successfully completed courses. Students may also audit courses at Tufts University under an agreement between Tufts University and the Medford Public Schools.

Many CTE programs offer state-wide articulated credit at Massachusetts community colleges. As a result, high school students earn college credit for being enrolled and meeting the requirements set by the college. This can be a significant cost savings to students and families who take advantage of this opportunity.

For further information on Dual Enrollment, the Tufts University partnership, and articulated credit, students should consult their guidance counselor.

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RANK IN CLASS

The standing of each pupil in his or her class is determined annually on the basis of a quality-point-weighted system. Rank-In-Class is one of the criteria that schools and colleges request of high school students seeking admission.

QUALIFICATIONS FOR COLLEGE ADMISSION

College admissions officers consider a variety of criteria in screening college applicants: a good scholastic record, entrance examinations, academic rank-in-class, high school certification, and the recommendations of guidance counselors, teachers and administrators. Most colleges require the applicant to take the Scholastic Assessment Test (SAT I Reasoning Test) given by the College Entrance Examination Board; many colleges require three of the SAT II Subject Tests as well. Students should consult college catalogs for specific information concerning admission requirements.

POLICY NOTIFICATION

It is the policy of MPS that no student shall be excluded from or discriminated against in admission to educational programs and activities or in obtaining the advantages and privileges of study because of race, color, sex, religion, gender identity, national origin, handicap or sexual orientation. Inquiries regarding the above may be made to the Headmaster or Vocational Director at 489 Winthrop Street, Medford, Massachusetts 02155 (393-2301) or the Director of the Office for Civil Rights, Department of Education, Washington, DC.

All programs are subject to change with appropriate notification. All programs are subject to the approval of the Medford School Committee and to budgetary considerations.

CORE SUBJECTS

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ENGLISH LANGUAGE ARTS

The English Language Arts Department at Medford High School provides continuing opportunities for each student to develop effective writing, reading, communication and grammar skills necessary for postsecondary endeavors. Although the emphasis placed on specific skills varies for each grade and level, the total program provides continuity in the student's educational program over four years. The English Language Arts curriculum follows specific guidelines that equip students with content knowledge and skills. These include the understanding and development of knowledge and skills leading to students' ability to:

- use informational texts and multimedia to foster strong content knowledge
- write persuasive, narrative and descriptive essays
- demonstrate inquisition and presentation skills through research projects
- think and use language through interactive learning
- analyze and synthesize material that fosters a deep understanding and appreciation for texts
- comprehend textual understanding of literary heritage, literary movements and cultural perspectives
- know the many uses of literature as seen through social commentary texts
- recognize and use all genres of literature
- comprehend and critique social media, the arts and text
- read and comprehend a variety of complex literary and informational texts
- respond both written and orally to the varying demands of audience, task, purpose, and discipline including strategic use of digital media
- develop and use speaking and listening skills to engage in collaborative and productive discussions

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Every student must take and pass English 9, 10, 11 and 12. A “double” English (e.g., English 11 and additional credits in other English electives) is strongly recommended in Grades 10, 11 and 12.. A student cannot progress to another English course without first fulfilling the prerequisites for that course; therefore, two regular English courses (e.g. English 10 and English 11) may not be taken simultaneously.

In addition, a summer reading requirement exists for all students entering College Prep, Honors and Advanced Placement courses in Grades 9 through 12. Titles are assigned by grade and students are assessed in early September. Therefore, completion of required summer reading is critical.

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Required Courses

ENGLISH 9: LITERARY EXPLORATION I

This course builds on student knowledge of literary and informational reading; persuasive, narrative and descriptive writing; and speaking, listening, and grammatical techniques. Throughout the year, students are provided with continued opportunities for developing these skills. Through robust text sets, students will explore a range of diverse authors with a specific emphasis on authentic voices. This lens will allow students to enhance critical reading and writing skills.

College Prep –5 Credits – Full Year

Honors –5 Credits – Full Year

Prerequisite for College Prep: Passing grade in English 8

Prerequisite for Honors: Average grade of "A-" in English 8

ENGLISH 10: LITERARY EXPLORATION II

Building on the ninth-grade literary exploration course, this course concentrates on themes of identity, heroism, and the power of voice. Students study the roots of the English language as well as literature from epic poetry to modern-day short fiction. Instruction spans the reading of ancient myths with a range of world cultures to modern novels from a vibrant variety of voices. Through class discussion, literary and informational reading, oral presentations, informal essays, critical essays, and independent research, students explore the major themes that the authors themselves explored. From this exposure, students develop higher critical and analytical reading and thinking skills in order to evaluate data and respond appropriately using a full range of communication forms and strategies.

College Prep –5 Credits – Full Year

Honors –5 Credits – Full Year

Prerequisite for College Prep: Passing grade in English 9

Prerequisite for Honors: Average grade of "B-" in Honors English 11 OR

Average grade of A- in College Prep English 1

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ENGLISH 11: AMERICAN LITERATURE

Exploring the many voices that comprise the American experience, this course delves into American literature and its connection to American history as well as the growth and growing pains of American society. Students will read indigenous, colonial, and foundational documents to develop an understanding of the vision that became the American Dream. They will then connect with America's progress and struggles toward achieving that vision through a close analysis of works representing the wide range of diverse voices and experiences that across the world and provide context for their own lives today. Through their reading and research, students will develop an understanding of how literature both reflects and shapes our diverse American society.

College Prep –5 Credits – Full Year

Honors –5 Credits – Full Year

Prerequisite for College Prep: Passing grade in English 10

Prerequisite for Honors: Average grade of "B-" in Honors English 11 OR
Average grade of A- in College Prep English 11

ADVANCED PLACEMENT ENGLISH 11: ENGLISH LANGUAGE AND COMPOSITION

This writing-intensive course includes the study of style, structure, rhetorical devices, and modes of discourse in conjunction with a close examination of American literature. Students should be avid readers and writers, eager to unlock the mysteries of poetry and prose from Emerson to Hemingway and beyond. Course requirements include an after-school seminar held each week for additional course work and for timed writings. Designed to perfect students' critical writing skills in preparation for the Advanced Placement examination in English Language and Composition, this course is also a prerequisite for Advanced Placement World Literature. This course is equivalent to the first-year English course in college. Students who desire Advanced Placement credit should take the national Advanced Placement examination in May.

Advanced Placement – 5 Credits – Full Year

Prerequisite: Average grade of "A-" in Honors English 10

HUMANITIES AMERICAN STUDIES (Honors) (Grade 11)

This themed based interdisciplinary course (Honors American Literature & Honors United States History) grounded in American Literature and United States History. The course provides students with a deep literary and historical knowledge of the aspects of American heritage. The course will examine literary contributions and provide opportunities to more closely understand their connection to major turning points in United States History. In accordance with Massachusetts DESE requirements, students will be expected to complete a Civics Project within this course.

Honors – 10 Credits – Full Year

Prerequisite for College Prep: Passing grade in United States History I

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ENGLISH 12: WORLD LITERATURE

This course explores the roots of literary tradition from a world literature perspective. A survey of world literature over periods of time from authors of multiple voices will afford students the opportunity to challenge and analyze the thinking of the great minds of Western Civilization. A variety of literary genres from a diverse collection of authors will be paired with a series of different types of writing tasks to prepare the students for postsecondary reading and writing.

Basic – 5 Credits – Full Year

College Prep – 5 Credits – Full Year

Honors – 5 Credits – Full Year

Prerequisite for College Prep: Passing grade in English 11

Prerequisite for Honors: Average grade of "B-" in Honors English 11 OR

Average grade of A- in College Prep English 11

ADVANCED PLACEMENT ENGLISH 12: ENGLISH LITERATURE AND COMPOSITION

This course includes a study of writing style, the structure and variety of sentences, diction, rhetorical strategies, modes of discourse, and appropriate relationships among author, audience and subject. Students read various examples of world literature from several genres and periods. In addition to increasing their ability to analyze an individual literary work in terms of character, language, setting, and themes, students evaluate structure, meaning, value and the relationship of the work to contemporary experience, as well as to the time in which the work was written. This course is equivalent to the first-year English course in college. Students who desire Advanced Placement credit should take the national Advanced Placement examination in May.

Advanced Placement – 5 Credits – Full Year

Prerequisite: Average grade of "A-" in Honors English OR

average grade of "B-" in Advanced Placement English 11

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WORLD LANGUAGE

Mission Statement:
The World Language Program at the Medford Public Schools provides students with the necessary tools to become global citizens and learners committed to understanding and appreciating their own culture as well as the culture of others. The program strives to empower students by broadening their perspectives, applying their language and presentational skills to real-life situations, and nurturing empathy for others. Furthermore, the program is committed to inspiring all students to find joy in language learning and applying their knowledge to other disciplines. As a result, students will develop the skills to be successful in today's job market and feel fully competent and well-adjusted in today's diverse world.

World Language courses in Medford Public Schools follow the proficiency model of language instruction reflected in the Massachusetts State Curriculum Frameworks and the National Standards for Education. Students are presented with grammar and vocabulary in context and are encouraged to express themselves in the Target Language independently of a text as soon as possible. Awareness of cultural differences and similarities is essential to complete language education. Interdisciplinary themes allow students to use the language they acquire to learn about their world in general. They also demonstrate a more authentic use of the language to communicate important information.

A minimum two-year high school world language course sequence is recommended for students seeking admission to competitive colleges. Our curriculum does not focus on standardized tests other than the Advanced Placement Exams and the Seal of Biliteracy Exam. However, students who have completed the Spanish, French, or Italian Intermediate Honors have been introduced to the full continuum of grammatical concepts and ample vocabulary. In most cases, this prepares students with the skills necessary for success on the SAT Subject Tests. Colleges express no preference among languages.

Seal of Biliteracy
Medford High School students may be eligible to receive a Seal of Biliteracy upon graduation. The Seal of Biliteracy is an award given by the Commonwealth of Massachusetts in recognition of students who have studied and attained a designated level of proficiency in two or more languages (including English) by high school graduation. The criteria are 1) a rating of Intermediate-High or above evaluated via testing that measures all language skills: reading, writing, listening, and speaking, and 2) a score of proficient or above on the high school ELA MCAS. Students fluent in a language not taken at school may qualify based on an alternate assessment and should contact the Coordinator of the World Language Department. We encourage all students to continue their study of language throughout high school, as multiple years of study will provide the opportunity to earn this award.

The following describes communicators in the Target Language when enrolled in a particular course. This is aligned with the American Council for the Teaching of World Languages (ACTFL).

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Novice Low
"Speakers at the Novice Low sublevel have no real functional ability and, because of their pronunciation, may be unintelligible. Given adequate time and familiar cues, they may be able to exchange greetings, give their identity, and name a number of familiar objects from their immediate environment. They are unable to perform functions or handle topics pertaining to the Intermediate level, and cannot therefore participate in a true conversational exchange." (ACTFL, 2012)

Novice Mid
"Speakers at the Novice Mid sublevel communicate minimally by using a number of isolated words and memorized phrases limited by the particular context in which the language has been learned. When responding to direct questions, they may say only two or three words at a time or give an occasional stock answer. They pause frequently as they search for simple vocabulary or attempt to recycle their own and their interlocutor's words. Novice Mid speakers may be understood with difficulty even by sympathetic interlocutors accustomed to dealing with non-natives. When called on to handle topics and perform functions associated with the Intermediate level, they frequently resort to repetition, words from their native language, or silence." (ACTFL, 2012)

Novice High
"Speakers at the Novice High sublevel are able to handle a variety of tasks pertaining to the Intermediate level, but are unable to sustain performance at that level. They are able to manage successfully a number of uncomplicated communicative tasks in straightforward social situations. Conversation is restricted to a few of the predictable topics necessary for survival in the Target Language culture, such as basic personal information, basic objects, and a limited number of activities, preferences, and immediate needs. Novice High speakers respond to simple, direct questions or requests for information. They are also able to ask a few formulaic questions." (ACTFL, 2012)

Intermediate Low
"Speakers at the Intermediate Low sublevel are able to handle successfully a limited number of uncomplicated communicative tasks by creating with the language in straightforward social situations. Conversation is restricted to some of the concrete exchanges and predictable topics necessary for survival in the Target-language culture. These topics relate to basic personal information; for example, self and family, some daily activities and personal preferences, and some immediate needs, such as ordering food and making simple purchases. At the Intermediate Low sublevel, speakers are primarily reactive and struggle to answer direct questions or requests for information. They are also able to ask a few appropriate questions. Intermediate Low speakers manage to sustain the functions of the Intermediate level, although just barely."

Intermediate Mid
"Speakers at the Intermediate Mid sublevel are able to handle successfully a variety of uncomplicated communicative tasks in straightforward social situations. Conversation is generally limited to those predictable and concrete exchanges necessary for survival in the Target culture. These include personal information related to self, family, home, daily activities, interests and personal preferences, as well as physical and social needs, such as food, shopping, travel, and lodging." (ACTFL, 2012)

Intermediate High
"Intermediate High speakers are able to converse with ease and confidence when dealing with the routine tasks and social situations of the Intermediate level. They are able to handle successfully uncomplicated tasks and social situations requiring an exchange of basic information related to their work, school, recreation, particular interests, and areas of competence." (ACTFL, 2012)

Advanced Low
"Speakers at the Advanced Low sublevel are able to handle a variety of communicative tasks. They are able to participate in most informal and some formal conversations on topics related to school, home, and leisure activities. They can also speak about some employment-related topics, current events, and matters of public and community interest." (ACTFL, 2012)

Secondary Program of Studies

FRENCH I, ITALIAN I, SPANISH I (Grades 9-12)

This course is an introduction to the Target Language. The course includes reading simple texts and discussions about the Target Language-speaking world. Students “learn by doing” per the department’s proficiency-based approach to teaching and learning and the progress indicators set forth by the American Council on the Teaching of World Languages (ACTFL). Instruction focuses on communication in real-life and simulated situations. By the end of this level, students should be able to communicate basic information about themselves, their everyday life, and the people they know by using phrases and simple sentences or asking and answering simple questions. The teacher will model the Target Language and students will be expected to practice using the Target Language. The target level in this course is Novice Low/Mid.

College Prep - 5 Credits – Full Year

FRENCH II, ITALIAN II, SPANISH II (Grades 9-12)

This course, taught primarily in the Target Language, focuses on further developing the four basic language skills (listening, speaking, writing, and reading) through various thematic units. Centering around the individual, these units cover topics such as daily routines, health & fitness, childhood experiences, and shopping, emphasizing communicating in practical, everyday situations. In addition to exploring more in-depth and advanced grammar topics, the content encourages students to think globally and make connections with the Target Language-speaking cultures around the world. Per the department’s proficiency-based approach to teaching and learning, students “learn by doing.” By the end of this level, students should be able to start, maintain and end a simple conversation on a variety of familiar topics, express needs, wants, and preferences on topics of interest, write about their daily life and understand messages and simple statements on everyday topics. The Target level in this course is Novice High.

Prerequisite: Spanish I-French I-Italian I/Novice Mid ability

College Prep - 5 Credits – Full Year

HONORS FRENCH II, HONORS ITALIAN II, HONORS SPANISH II (Grades 9-12)

This course, taught primarily in the Target Language, focuses on further developing the four basic language skills (listening, speaking, writing, and reading) through various thematic units. Centering around the individual, these units cover topics such as daily routines, health & fitness, childhood experiences, and shopping, emphasizing communicating in practical, everyday situations. In addition to exploring more in-depth and advanced grammar topics, the content encourages students to think globally and make connections with the Target Language-speaking cultures around the world. By the end of this level, students should be able to start, maintain and end a simple conversation on a variety of familiar topics, express needs, wants, and preferences on topics of interest, write about their daily life and understand messages and simple statements on everyday topics. The Target level in this course is Intermediate Low.

Prerequisite: Spanish I-French I-Italian I/Novice High ability

Honors - 5 Credits – Full Year

Secondary Program of Studies

FRENCH III, ITALIAN III, SPANISH III (Grades 9-12)

This course is taught primarily in the Target Language, concentrating on developing vocabulary and speaking proficiency. Students will be tasked with: engaging in authentic conversations about familiar topics in the Target Language, communicating effectively every day, presenting information (both verbally and written) on present, past, and future events, as well as making cultural comparisons between the United States and other Target Language-speaking countries. Students will learn to start locally but think globally, as they will be exposed to various authentic materials from the Target Language-speaking countries. Per the department's proficiency-based approach to teaching and learning, students will "learn by doing." The Target level in this course is Intermediate Low.

Prerequisite: Spanish II-French II-Italian II/Novice High ability

College Prep - 5 Credits – Full Year

HONORS FRENCH III, HONORS ITALIAN III, HONORS SPANISH III (Grades 9-12)

This course is taught primarily in the Target Language, concentrating on developing vocabulary and speaking proficiency. Students will be tasked with: engaging in authentic conversations about familiar topics in the Target Language, communicating effectively every day, presenting information (both verbally and written) on present, past, and future events, as well as making cultural comparisons between the United States and other Target Language-speaking countries. Students will learn to start locally but think globally, as they will be exposed to various authentic materials from the Target Language-speaking countries. Per the department's proficiency-based approach to teaching and learning, students will "learn by doing." The Target level in this course is Intermediate Mid.

Prerequisite: Spanish II-French II-Italian II/Intermediate Low ability

Honors - 5 Credits – Full Year

FRENCH IV, ITALIAN IV, SPANISH IV (Grades 11-12)

This course, conducted primarily in the Target Language, is designed to synthesize all the skills learned in the first three levels of the Target Language. By the end of this course, students should be able to participate in conversations on a wide variety of topics beyond everyday life, and communicate effectively on various present, past, and future events. Increasing proficiency in spoken and written language use will be developed within a cultural context with an emphasis on expanding vocabulary. Grammar will be reviewed as it applies to situations encountered. Literature is introduced via selected short stories and poems that will be used as a tool to increase comprehension of the written Target Language. Students will be expected to speak in the Target Language daily as their main form of verbal communication, write regularly, periodically present to the class, and participate in daily class discussions. The Target level in this course is Intermediate Low/Mid.

Prerequisite: Spanish III-French III-Italian III-/Intermediate low/mid ability

College Prep - 5 Credits – Full Year

Secondary Program of Studies

HONORS FRENCH IV, HONORS ITALIAN IV, HONORS SPANISH IV (Grades 11-12)

This course, conducted almost entirely in the Target Language, is designed to synthesize all the skills learned in the first three levels of the Target Language. By the end of this course, students should be able to participate in conversations on a wide variety of topics that go beyond everyday life and communicate effectively on a wide variety of present, past, and future events. While a grammar reference text will be provided, the course will not rely on any specific textbook. Increasing proficiency in both spoken and written use of the language will be developed within a cultural context with an emphasis on the expansion of vocabulary. Literature is introduced via selected short stories and poems that will be used as a tool to increase comprehension of written tasks in the Target Language. Students will be expected to speak in the Target Language daily as their main form of verbal communication, write regularly, present to the class periodically, and participate in daily class discussions. The Target Level in this course is Intermediate Mid/High.

Prerequisite: Spanish III-French III-Italian III/Intermediate Mid-ability

College Prep - 5 Credits – Full Year

ITALIAN V and SPANISH V CP (Grades 12)

This course, conducted entirely in the Target Language, allows students to study universal themes and make cultural comparisons through the Target Language films. Increasing proficiency in both spoken and written use of the language will be developed within a cultural context with an emphasis on the expansion of vocabulary. By the end of this course, students should be able to exchange detailed information in an organized way on both familiar topics, as well as social, academic, and professional topics that will be useful in the future to use and apply to their future careers. They will deliver short presentations on social and cultural topics for a specific audience, write well-organized texts for a variety of purposes, and understand directions and instructions on everyday tasks, as well as the main idea and many details of descriptions or interviews. They will follow the general idea of texts and speeches and some details of various stories and autobiographical accounts when written in a wide variety of past, present, and future time frames. The Target level in this course is Intermediate Mid/High.

Prerequisite: Spanish IV-French IV-Italian IV/Intermediate Mid-ability

. *College Prep - 5 Credits – Full Year*

Secondary Program of Studies

ADVANCED PLACEMENT FRENCH LANGUAGE (Grade 12)

ADVANCED PLACEMENT ITALIAN LANGUAGE (Grade 12)

ADVANCED PLACEMENT SPANISH LANGUAGE (Grade 12)

This course is for students who have hit the Target level of Intermediate High and wish to take the Advanced Placement of the Target Language and Culture Exam. Students will engage in various tasks in the Target Language surrounding the themes of global challenges, science and technology, contemporary life, personal and public identities, families and communities, and beauty and aesthetics. The course is designed to reflect a college-level course's academic expectations and rigor as delineated by the College Board. Students are invited and encouraged to take the Advanced Placement of the Target Language and Culture Exam.

Prerequisite: Spanish IV-French IV-Italian IV/Intermediate Mid/High ability.

Advanced Placement - 5 Credits – Full Year

Secondary Program of Studies

MATHEMATICS

The Mathematics Department offers a core mathematics program that is rigorous in content, high in expectations, and accessible to all students. The curriculum reflects the standards articulated by the Massachusetts Curriculum Framework for Mathematics, the Common Core State Standards for mathematics education, the National Council of Teachers of Mathematics, and the Massachusetts Comprehensive Assessment System. All students must take and pass four years of mathematics to include a course beyond Algebra II OR Integrated Math III. The recommended course sequence for incoming 9th-grade students is Integrated Math I, II, and III, followed by a 5-credit mathematics elective. Students who complete Algebra I in grade eight can elect to take Geometry in grade nine. Additionally, students have the opportunity to accelerate in mathematics at grade ten. Computer programming courses offered in the mathematics department can count toward the 4-year requirement in the senior year with permission from the Curriculum Director and Director of Guidance. The department also offers support mini-courses.

Secondary Program of Studies

INTEGRATED MATH I (Grade 9)

This is the first course of a three-year college preparatory integrated math sequence and meets the graduation requirement for the state of Massachusetts. It follows the Integrated Math Pathway in the Common Core State Standards articulated by the Massachusetts Curriculum Framework for Mathematics. Students extend their understanding of numerical manipulation to algebraic manipulation; synthesize an understanding of function; deepen and extend their understanding of linear relationships; apply linear models to data that exhibit a linear trend; establish criteria for congruence based on rigid motions; and apply the Pythagorean Theorem to the coordinate plane. Students work collaboratively and individually and demonstrate their learning through the Standards of Mathematical Practice. Students are exposed to rich instruction that develops their conceptual understanding, procedural skill, problem-solving skills, and critical thinking abilities and strengthens situational analysis abilities.

College Prep - 5 Credits – Full Year

HONORS INTEGRATED MATH I (Grade 9)

This is the first course of a three-year college preparatory integrated math sequence and meets the graduation requirement for the state of Massachusetts. It follows the Integrated Math Pathway in the Common Core State Standards articulated by the Massachusetts Curriculum Framework for Mathematics. Students extend their understanding of numerical manipulation to algebraic manipulation; synthesize an understanding of function; deepen and extend their understanding of linear relationships; apply linear models to data that exhibit a linear trend; establish criteria for congruence based on rigid motions; and apply the Pythagorean Theorem to the coordinate plane. Additional topics from advanced math courses will be incorporated to prepare students for an in-depth study of limits, derivatives, and integrals in the future. Students work collaboratively and individually and demonstrate their learning through the Standards of Mathematical Practice. Students are exposed to rich instruction that develops their conceptual understanding, procedural skill, problem-solving skills, and critical thinking abilities and strengthens situational analysis abilities.

Honors - 5 Credits – Full Year

Prerequisite: A grade of “A-” or better in 8th Grade Math or a grade of “C-” or lower in 8th Grade Algebra I

Strongly Recommended: Graphing Calculator

Secondary Program of Studies

GEOMETRY (Grades 9-10)

This course extends the study of geometry by emphasizing precision and developing reasoning and proof. Students will demonstrate understanding using geometric models, constructions, algebra-ic reasoning and trigonometry. The students develop mathematical language as they investigate problems, make and test conjectures, draw conclusions, and describe results. The course focuses on proving congruence and demonstrating similarity through transformations and proportional rea-soning; deriving and using equations of conic sections in the coordinate plane; explaining and using volume formulas to solve problems; as well as understanding and applying the rules of probability to make decisions.

Honors - 5 Credits – Full Year

Prerequisite: Passing grade in Algebra I;

Strongly Recommended: Graphing Calculator

HONORS GEOMETRY (Grades 9-10)

Students are provided with a rigorous study of relationships, properties, and measurements of geometric figures. Students will demonstrate a high level of abstract and quantitative reasoning as they communicate understanding. This course extends the geometry study by tending to precision and developing proofs. Students will demonstrate their depth of understanding using geometric models, constructions, algebraic reasoning, and trigonometry. The students develop mathematical language by investigating problems, making and testing conjectures, drawing conclusions, and describing results. The course focuses on proving congruence and demonstrating similarity through transformations and proportional reasoning; writing formal arguments; deriving and using equations of conic sections of circles and parabolas in the coordinate plane; explaining and using volume formulas to solve problems; and understanding and applying the rules of probability to make decisions.]

College Prep - 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: Passing grade in Algebra I

Strongly Recommended: Graphing Calculator

Secondary Program of Studies

ALGEBRA II (Grades 10-11)
This course emphasizes the study of functions, including linear, quadratic, exponential, logarithmic, polynomial, rational, and radical functions, their properties, and graphs. The students will understand the relationship between the arithmetic of rational numbers and that of rational expressions, extend their understanding of trigonometric ratios as they graph periodic functions, and identify the appropriate function to model a situation. Students will also use statistical models to interpret data, make inferences and justify conclusions.

College Prep - 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A passing grade in Geometry

Strongly Recommended: Graphing Calculator

HONORS ALGEBRA II (Grades 10-11)

This course provides rigorous preparation for Precalculus through investigating challenging problems and discussions that develop an understanding of algebraic concepts. The study of linear, quadratic, exponential, logarithmic, polynomial, rational, and radical functions, their properties, and graphs are emphasized. Students will develop an understanding of algebraic concepts and procedures through communication, representation, reasoning, making connections, problem-solving, and technological representation. The students will understand the relationship between the arithmetic of rational numbers and that of rational expressions, extend their understanding of trigonometric ratios as they graph periodic functions, and identify the appropriate function to model a situation. They will represent and solve problems with vector and matrix quantities. Students will also use statistical models to interpret data, make inferences and justify conclusions.

Honors - 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A grade of “A-” or better in College Prep Geometry, “B-” or better in Honors Geometry

Strongly Recommended: Graphing Calculator

INTEGRATED MATH II (Grade 10)

Integrated Math II is the second course of a three-year college preparatory integrated math sequence and meets the graduation requirement for the state of Massachusetts. It follows the Integrated Math Pathway in the Common Core State Standards articulated by the Massachusetts Curriculum Framework for Mathematics. Students will study the quadratic, absolute value, and other functions. Students will also explore polynomial functions and factoring, probability, and its applications. Coverage of geometry topics extends to polygon relationships, proofs, similarity, trigonometry, circles, and three-dimensional figures. Students work collaboratively and individually and demonstrate their learning through the Standards of Mathematical Practice. Students are exposed to rich instruction that develops their conceptual understanding, procedural skill, problem-solving skills, and critical thinking abilities and strengthens situational analysis abilities.

College Prep - 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A passing grade in Integrated Math I

Strongly Recommended: Graphing Calculator

HONORS MATHEMATICAL DECISION MAKING w/ DATA SCIENCE (Grade 12)

This course provides students the opportunity to apply mathematics as they model a range of situations to solve problems involving the use of algebra, geometry, and trigonometry in diverse areas such as statistics and financial mathematics. The course is highly participatory, as students learn in a cooperative environment where they discuss and make presentations. Students extend their learning of previously known concepts and learn new content as they sharpen the quantitative reasoning skills needed post-high school. A unit on Data Science is also covered as part of this course. Students electing this course may not take Consumer Math.

Honors– 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A grade of" B+" or better in College Prep Algebra 2, "B-" or better in Honors Algebra 2

Strongly Recommended: Graphing Calculator

Secondary Program of Studies

STATISTICS THROUGH APPLICATION (Grades 11 and 12)

This course introduces students to essential topics in statistics by focusing on statistical thinking behind data collection and analysis. It helps students be more discerning consumers of statistics, teaching them to interpret the numbers in surveys, election polls, and medical studies. Topics include sampling, surveys, experimental design, organizing data, distributions, probability, and reference.

Honors– 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A passing grade in Algebra 2

Strongly Recommended: Graphing Calculator

ADVANCED PLACEMENT STATISTICS (Grades 11 and 12)

This course is equivalent to a first-semester college course in statistics. Students are exposed to four broad conceptual themes: exploring data by describing patterns and departures from patterns; sampling and experimentation whereby students plan and conduct studies; anticipating patterns using probability and simulation to explore random phenomena; and statistical inference through estimation of population parameters and testing hypotheses. Processes include problem-solving, reasoning, communication, representation, connections, and technology integration. Students electing this course are expected to take the Advanced Placement Examination in May and, depending on the results, may be granted credit and/or appropriate placement by a participating college.

Advanced Placement – 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A grade of “B” or better in Honors Algebra 2 or A- or better in Algebra 2

Strongly Recommended: Graphing Calculator

Secondary Program of Studies

TOPICS IN ALGEBRA AND TRIGONOMETRY (Grade 11-12)

Students electing this course may take Precalculus as a later course. Students should take this course if they are not ready for PreCalculus and would like to improve their current math skills, expand their mathematical knowledge in preparation for college-level mathematics, and learn how mathematics is applied in various subject areas. The course may include such topics as exponential and quadratic functions, quadratic equations, systems of equations, factoring of polynomials, exponents, radicals, matrices, composite functions, linear programming/modeling, Conics, trigonometry, logarithms, statistics, probability, data analysis, problem-solving techniques, and applications of concepts covered in Algebra I, Geometry, and Algebra II. Connections to the real world and cross-curricular applications will be made.

College Prep - 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A passing grade in Algebra II

Strongly Recommended: Graphing Calculator

PRECALCULUS (Grades 11 and 12)

Through problem-solving, reasoning, communication, representation, and connections, this course reviews linear, quadratic, polynomial, rational, and exponential functions and helps develop an understanding of logarithmic and trigonometric functions. Additional topics may include studying parametric functions, complex numbers, sequences, and series and an introduction to vectors and conic sections.
College Prep - 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A grade of “B-” or better in Algebra II CP or “C” in Honors Algebra II

Strongly Recommended: Graphing Calculator

Secondary Program of Studies

HONORS PRECALCULUS (Grades 11 and 12)

Through problem-solving, reasoning, communication, representation, and connections, this course presents a comprehensive study of functions with a thorough treatment of trigonometric, logarithmic, and exponential functions. Additional topics include the study of polynomial, rational, and parametric functions, complex numbers, sequences, and series, and an introduction to vectors and conic sections, polar coordinates, data distributions, and probability.

Honors - 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A grade of “A-” or better in College Prep Algebra II, “B” or better in Honors Algebra II

Strongly Recommended: Graphing Calculator

HONORS CALCULUS (Grades 11 and 12)

This course provides an introduction to many of the concepts found in a first-year college course in calculus and is designed for students who are not planning on taking the AP Calculus exam. A theoretical foundation is laid through the treatment of limits and continuity. Emphasis is placed upon problem-solving, reasoning, communication, connections, representations, and an understanding of the underlying principles of calculus rather than memorizing formulas. Other topics include derivatives, integration, sequences, curves, and vectors.

Honors - 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A grade of “B-” or better in a full-year DESE standards-based College Prep Precalculus or “C-” or better in a full-year DESE standards-based Honors Precalculus course

Strongly Recommended: Graphing Calculator

ADVANCED PLACEMENT CALCULUS (Grades 11 and 12)

This course is equivalent to a first-year college course in calculus and builds on the PreCalculus standards by the Department of Elementary and Secondary Education (DESE). A theoretical foundation is laid by treating functions and their graphs with limits, derivatives, and integrals. Emphasis is placed on understanding the underlying principles of calculus rather than on memorizing formulas. Processes include problem-solving, reasoning, communication, representation, connections, and technology integration. Students electing this course are expected to take the Advanced Placement Examination in May and, depending on the results, may be granted credit and appropriate placement by a participating college
.
Advanced Placement - 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: A grade of “B+” or better in a full-year DESE standards-based Honors Precalculus course

Strongly Recommended: Graphing Calculator

Secondary Program of Studies

EXPLORATIONS IN COMPUTER PROGRAMMING (Grades 11-12)

This course introduces the development of computer programming techniques using several programming languages, including Scratch, Python, and the web application App Inventor. Emphasis is placed on proper programming style with a concentration on algorithm development and problem-solving. Course content includes data types, strings, mathematical operations, control structures, functions, parameter passing, data structure, arrays, file-processing program documentation, and debugging skills. Students will spend the majority of the class time on hands-on lab activities that reinforce the development of computational thinking skills. This course is designed for students with no previous programming experience.

College Prep – 5 Credits – 6 periods per Cycle – Full Year

Prerequisite: A passing grade in Algebra II or department approval; Students electing this course to satisfy the 4-year mathematics requirement need departmental approval

HONORS COMPUTER PROGRAMMING (Grades 11-12)

This course provides students with a hands-on investigation of the object-oriented programming language C++. Students will develop an understanding of the syntax of C++, program design, and programming algorithms through communication, representation, reasoning, making connections, and problem-solving using related software. Topics and procedures include loops, strings, arrays, and various searching and sorting techniques. Programming projects will be analyzed, interpreted, evaluated, and logically coded in C++ to reinforce understanding of the explored mathematics topics. Demonstration of computational thinking through effective communication of programming techniques and understanding the completed project coding will be stressed.

Honors – 5 Credits – 6 periods per Cycle – Full Year

Prerequisite: Grade of “C” or better in Honors Algebra II, “B” or better in College Prep Algebra II, or department approval. Students electing this course to satisfy the 4-year mathematics requirement need departmental approval.

Secondary Program of Studies

ADVANCED PLACEMENT COMPUTER SCIENCE A (JAVA) (Grades 11 and 12)

This course provides students with the equivalent of a first-semester college-level course in computer science. Emphasis is placed on object-oriented programming methodology, concentrating on problem-solving and algorithm development. It also includes the study of data structures, design, and abstraction. Students are expected to become proficient in programming in Java and read and understand an extensive program consisting of several classes and interacting objects. Programming assignments and projects will align with the College Board's required program of studies and application of mathematical proficiencies to solve problems rooted in algebra and geometry. Students will need access to a computer. Students will be assigned homework regularly. Students electing this course are expected to take the Advanced Placement Examination in May and, depending on the results, may be granted credit and appropriate placement by a participating college.

Advanced Placement – 5 Credits – 6 periods per Cycle – Full Year

Prerequisite: For incoming 11th graders, a Grade of "B-" or better in Honors Algebra II or "B+" or better in College Prep Algebra II or department approval. For incoming 12th graders B- in Honors Precalculus or B+ in Precalculus CP or department approval. Students electing this course to satisfy the 4-year mathematics requirement need departmental approval.

PERSONAL FINANCE (Grade 12 Only)

This course is designed to provide students with the confidence and knowledge to navigate the financial decisions of young adults successfully. Topics include budgeting, banking, credit and loans, taxes, insurance, and investing. This is a project-based, mathematical modeling course that is algebra-focused, applications-oriented, and technology dependent. In each unit of the course, math skills will be emphasized, and students will learn the value of applied mathematics. This course will count towards the four-year math graduation requirement and is open to only senior students who have already passed Algebra II.

College Prep - 5 Credits – 6 Periods per Cycle – Full Year]

Prerequisite: Grade 12 students only and a passing grade in Algebra II

Secondary Program of Studies

CONSUMER MATH (Grade 12 Only)

This course engages students in relevant real-life problems and prepares them for various future options as discerning consumers. It is designed to develop and improve the utilization of problem-solving strategies in educational coursework and the workplace. Students will determine "reasonableness" and evaluate mathematical representations of real-world situations. Topics will include personal finance (checking accounts, credit cards, income taxes, auto loans, and student loans), statistical studies (organizing data, describing data visually and numerically, graphical representations, modeling with data, and numerical analysis), and voting theory (voting methods and election polling). Each unit will deepen students' understanding of where the math works in the world around them. This course is open to senior students who need dual enrollment in Algebra II. Students enrolled in this course may not take Personal Finance due to the overlap of certain units.

College Prep – 5 Credits – 6 Periods per Cycle – Full Year

Prerequisite: Passing grade in College Prep Geometry; Dual enrollment with Algebra II CP

SPORTS STATISTICS (Grade 11 and 12)

Using project-based instruction and real-world situations, this course will give students the knowledge and general understanding of many key aspects of statistics from the sports perspective. Students will learn how to use and interpret statistics based on the data and numbers from various sports. The structure of this class will reflect real-world situations as closely as possible.

College Prep – 2 Credits – 2 Periods per Cycle – Full Year

Prerequisite: A passing grade in the student's sophomore-year course

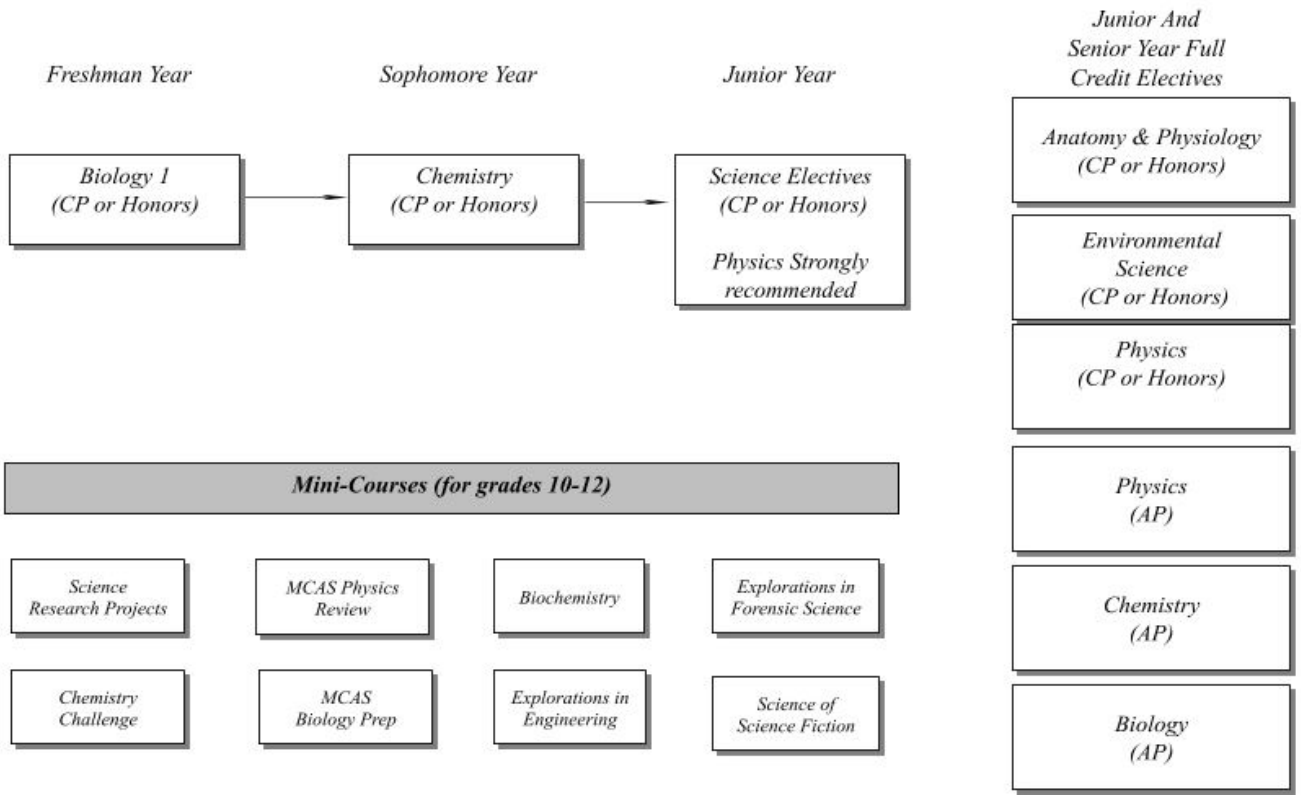
Secondary Program of Studies

SCIENCE

A scientific education is designed to develop in the student an appreciation of the joy, excitement, and intellec-tual awareness of our biological, physical, technological, and chemical environment. Balanced with the study of the arts and humanities, students will be able to achieve a wider understanding of their complex world. A person literate in science will be able to understand science concepts and process skills in making decisions related to scientific issues that affect society. The science curriculum supports students' interests in different career paths. The expectation is that all students will complete a course in each of the three main domains of science as they pursue their 3-course graduation requirement: physics, biology, and chemistry. This is also the recommendation of national, state, and local science organizations and many colleges and universities. After exploring these various sciences, students have the opportunity to select one of these areas for further study or another area of science such as anatomy and physiology or environmental science.
Lab-Based Science and Technology/Engineering Credit-Eligible CTE offerings (can be used to satisfy the 3-year lab-based graduation course requirement)
Robotics/Engineering, Grade 11 or 12
Biotechnology, Grade 11 or 12
AP Computer Science Principles

SCIENCE SEQUENCE CHART

THREE LAB-BASED SCIENCE COURSES ARE REQUIRED FOR GRADUATION



Secondary Program of Studies

BIOLOGY I (Grade 9)

This course emphasizes inquiry and lab-based experiences to explore the fundamental principles of living things. Students learn about the diversity of living organisms and their relationship to the environment. They encounter standards in the areas of The Chemistry of Life, Cell Biology, Genetics, Anatomy and Physiology, Evolution and Biodiversity, and Ecology. In classes where dissection is used as an instructional activity, students will be presented with alternatives as described in the district's Dissection Policy.

College Prep – 5 Credits – Full Year

Prerequisite: Passing grade in 8th Grade Science

HONORS BIOLOGY I (Grade 9)

This is a course for students selected by the Science Department for acceleration in Grade 9. Strong mathematical and reading abilities are essential. This rigorous course emphasizes inquiry, research, and lab-based experiences to explore the fundamental principles of living things and examine systems from the molecular level through cell biology and genetics, to the tissue and organ level in vertebrate anatomy and physiology, and at the level of organisms and populations through ecology. Students encounter standards in the areas of The Chemistry of Life, Cell Biology, Genetics, Anatomy and Physiology, Evolution and Biodiversity, and Ecology. In classes where dissection is used as an instructional activity, students will be presented with alternatives as described in the district's Dissection Policy.

Honors – 5 Credits – Full Year

Prerequisite: A grade of A- or better in 8th Grade Science. A teacher recommendation is also required.

Secondary Program of Studies

CHEMISTRY I (Grade 10-12)

This course focuses on the interaction of matter through chemical reactions. Properties and states of matter, atomic structures, chemical formulas, bonding, chemical reactions, energy, gas laws, survey of materials, solutions, acids/bases, and organic, nuclear and equilibrium chemistry are some of the topics covered. Laboratory experimentation is an essential feature of the course.

College Prep – 5 Credits – Full Year

Prerequisite: Passing grade in Biology and Algebra I

Scientific or Graphing Calculator

HONORS CHEMISTRY I (Grades 10 & 11)

This is a course primarily for students selected by the Science Department for acceleration in Grade 10. Strong mathematical and reading abilities are essential. This courses uses inquiry and lab-based experiences to explore the properties of matter and how these properties help to organize elements on the periodic table. Students develop an understanding of the structure of the atom and of chemical reactions, including the involvement of energy and sub-atomic particles to better understand the nature of chemical changes. They learn about chemical reactions (e.g. oxidation-reduction, combustion, decomposition), and gain an understanding of acids and bases and rates of reaction. By calculating stoichiometry problems and molar concentrations, students strengthen proportionality and other mathematical skills. They will encounter other standards in the areas of Properties of Matter; Atomic Structure and Nuclear Chemistry; Periodicity; Chemical Bonding; Chemical Reactions and Stoichiometry; States of Matter, Kinetic Theory, and Thermochemistry; Solutions, Rates of Reactions, and Equilibrium; and Acids, Bases, and Reduction-Oxidation Reactions.

Honors – 5 Credits – Full Year

Prerequisite: A grade of “B-” or better in Honors Biology or “A-” or better in College Prep Biology

Strongly Recommended: Scientific or Graphing Calculator

Secondary Program of Studies

ANATOMY AND PHYSIOLOGY (Grades 11 and 12)

This course studies the structure and function of the human body and the mechanisms for maintaining homeostasis within it. It includes the study of cells, tissues and the integumentary, skeletal, muscular and nervous systems. It also includes the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, and the concepts of development, metabolism, fluid and electrolyte balance, and acid-base balance. This course uses dissection as an instructional activity. Students will be presented with alternatives as described in the district's Dissection Policy.

College Prep – 5 Credits – Full Year

Prerequisite: Passing grade in Biology and Chemistry

HONORS ANATOMY AND PHYSIOLOGY (Grades 11 and 12)

This course has been designed to meet the needs of those students who must acquire a firm grounding in human anatomy and physiology in order to prepare for medical, nursing or paramedical careers. Students will investigate the structure and function of the human body with an emphasis on laboratory work. This course studies the structure and function of the human body and the mechanisms for maintaining homeostasis within it. It includes the study of cells, tissues and the integumentary, skeletal, muscular and nervous systems. It also includes the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary and reproductive systems, and the concepts of development, metabolism, fluid and electrolyte balance, and acid-base balance. This course uses dissection as an instructional activity. Students will be presented with alternatives as described in the district's Dissection Policy.

Honors – 5 Credits – Full Year

Prerequisite: Grades of "B-" or better in Honors Biology and Honors Chemistry or "A-" or better in College Prep Biology and College Prep Chemistry

PHYSICS I (Grades 11 and 12)

This course will give students a coherent view of Physics with a strong foundation in Newtonian mechanics, electricity/magnetism, waves and light. Emphasis is placed on understanding the basic laws and concepts of Physics. The major topics of the course are mechanics, electricity/magnetism, waves and optics. Experimentation, classroom demonstrations and problem-solving applications are used to accomplish the goals outlined above.

College Prep – 5 Credits – Full Year

Prerequisite: Passing grades in Biology, Chemistry, and Algebra 2 or concurrent enrollment in Algebra 2

Strongly Recommended: Scientific or Graphing Calculator

HONORS PHYSICS I (Grades 11 and 12)

This course will give students a coherent view of Physics with a strong foundation in Newtonian mechanics, electricity/magnetism, waves and light. The course goes beyond a conceptual understanding of basic laws and concepts including in-depth study, discussion, and application with reliance on strong mathematical understanding. The curriculum is taught at faster pace than the College Prep level to accommodate the rigor and breadth of an honors level course.

College Prep – 5 Credits – Full Year

Prerequisite: Grades of "B-" or better in Honors Chemistry and Honors Algebra 2 or "A-" or better in College Prep levels of the courses named

Strongly Recommended: Scientific or Graphing Calculator

ADVANCED PLACEMENT BIOLOGY II (Grades 11-12)

This course is designed to be the equivalent of a college introductory biology course. Students are expected to take the Advanced Placement Exam in May and, depending on the results, may be granted credit and/or appropriate placement by a participating college. The topics for this laboratory course include biochemistry, cellular studies, genetics, evolution, biodiversity and population dynamics.

Advanced Placement – 6 Credits – Full Year

Prerequisite: A grade of "A-" or better in Honors Biology and Honors Chemistry

Strongly Recommended: Basic four function calculator

ADVANCED PLACEMENT CHEMISTRY II (Grades 11 and 12)

This course is a cooperative educational endeavor of the College Board, which permits students to pursue a college level course while still in high school. Students are expected to take the Advanced Placement Examination in May and, depending on the results, may be granted credit and/or appropriate placement by a participating college. The topics for this laboratory course include atomic and

molecular theory, stoichiometry, phases of matter, solutions, equilibrium, and thermodynamics.

Advanced Placement – 6 Credits – 7 Periods per Cycle – Full Year

Prerequisite: A grade of "A-" or better in Honors Biology, Honors Chemistry, and Honors Algebra II

Strongly Recommended: Scientific or Graphing Calculator

ADVANCED PLACEMENT PHYSICS II (Grade 12)

This course is equivalent to a first year of college Physics for students with high mathematical ability and is designed with the expectation that students have been exposed to a full year of Physics I. The topics covered are mechanics and electricity/magnetism, with equal emphasis on each. Additional topics may include waves, optics, thermodynamics and relativity. Methods of the calculus are used whenever appropriate. Students must have taken or concurrently enroll in Calculus. Students are expected to take the Advanced Placement Exam in May and, depending on the results, may be granted credit and/or appropriate placement by a participating college.

Advanced Placement – 6 Credits – Full Year

Prerequisite: A grade of "A-" or better in Honors Chemistry, Honors Physics and Honors Precalculus.

Students need to take Calculus concurrently.

Requirement: TI-83+ or TI-84+ Graphing Calculator.

ENVIRONMENTAL SCIENCE (Grades 11 and 12)

This course enables students to develop an understanding of the natural environment and the environmental problems the world faces. Students will investigate, through inquiry, labs, project work, presentations, and field experiences, topics such as: fundamental ecological principles, natural resources, air and water pollution, global climate change, hazardous and solid waste, alternative energy resources, soil, deforestation, biodiversity and endangered species, and their ecological, economical and human health impacts. Particular emphasis will be placed on local environments so students develop a basic understanding of ecology as a basis for making ethical decisions and career choices. An independent science fair research project is required. The students are responsible for overseeing the recycling program at MHS and participating in the annual Earth Week celebration. This course has a required online component that enhances the concepts taught in class.

College Prep – 5 Credits – Full Year

Prerequisite: A passing grade in Biology and Chemistry

HONORS ENVIRONMENTAL SCIENCE (Grades 11 and 12)

The course explores the role which humans play in causing environmental change and the underlying values and ethical judgments involved in making choices. Students will investigate, through inquiry, labs, independent research, project work, presentations, and community service, topics such as: fundamental ecological principles, environmental history, human overpopulation, food and agricultural resources, air and water pollution, global climate change, ozone depletion, acid rain, hazardous and solid waste, alternative energy resources, soil, deforestation, over fishing, biodiversity and endangered species, and their ecological, economical and human health impacts. An independent science fair research project is required. Students are also responsible for overseeing the recycling program at MHS and participating in the annual Earth Week celebration. This course has a required online component that further enhances the concepts taught in class.

Honors – 5 Credits – Full Year

Prerequisite: Grades of “B-” or better in Honors Biology and Honors Chemistry or “A-” or better in College Prep Biology and College Prep Chemistry

Secondary Program of Studies

SOCIAL STUDIES

Students need to successfully complete three years of Social Studies instruction in order to be eligible for graduation. As juniors, all students are required to take United States History. Seniors have the choice of several courses but must first ensure that they have passed all of their requirements.

Five-Credit Courses

WORLD HISTORY (Grade 9)

Students in Grade 9 will study the history and geography of the civilizations and nations across the world. Students will examine world cultures and understand the role of interactions among regions and governments such as immigration war, conquest, colonization, trade, and culture diffusion. There will be an emphasis placed on primary sources and the student's ability to develop research questions and conduct inquiries with these primary sources.

College Prep – 5 Credits – Full Year

Honors – 5 Credits – Full Year

Prerequisite for College Prep: Passing grade in United States History I (Grade 8)

Prerequisite for Honors: Average grade of “A-” in United States History I (Grade 8)

Requirement for Honors: Summer reading project due by the first day of school

Secondary Program of Studies

UNITED STATES HISTORY I (Grade 10)

Students will explore an in-depth analysis of the history of the United States in the 17th, 18th, and 19th century. Exposure to events outside the United States and their impact on the development of the country will also be explored. Throughout the course, there will be an emphasis placed on primary sources and a student's ability to develop research questions and conduct inquiries with these primary sources.

College Prep – 5 Credits – 6 Periods per Cycle – Full Year
Honors – 5 Credits – Full Year

Prerequisite for College Prep: Passing grade in World History
Prerequisite for Honors: Average grade of "B-" in Honors World History OR
Average grade of "A-" in College Prep World History
Requirement for Honors: Summer reading project due by the first day of school

UNITED STATES HISTORY II (Grade 11)

This course will explore the history of the United States and beyond in the 20th and 21st centuries. Students will understand how people of diverse backgrounds have worked to define the United States, how sectional issues have resulted in bitter conflicts, the ideas that have united the country, how th United States became a world power, and how citizens have fought to expand civil rights and defend democratic processes at home and in other parts of the world. There will be an emphasis placed on primary sources and students ability to develop research questions and conduct inquiries with these primary sources.

College Prep – 5 Credits – 6 Periods per Cycle – Full Year
Honors – 5 Credits – Full Year

Prerequisite for College Prep: Passing grade in US History I
Prerequisite for Honors: Average grade of "B-" in Honors US History I OR
Average grade of "A-" in College Prep US History I
Requirement for Honors: Summer reading project due by the first day of school

HUMANITIES AMERICAN STUDIES (Honors) (Grade 11)

This themed based interdisciplinary course (Honors American Literature & Honors United States History) grounded in American Literature and United States History. The course provides students with a deep literary and historical knowledge of the aspects of American heritage. The course will examine literary contributions and provide opportunities to more closely understand their connection to major turning points in United States History. In accordance with Massachusetts DESE requirements, students will be expected to complete a Civics Project within this course.

Honors – 10 Credits – Full Year

Prerequisite for College Prep: Passing grade in United States History I

Secondary Program of Studies

ECONOMICS (Honors) (Grade 12)

This honors course is designed for highly motivated seniors wishing to gain an overview of economics as presented in the Massachusetts Social Studies Curriculum Frameworks. Students will gain knowledge in a wide range of topics including workers, wages and employment in the modern economy, international trade and monetary policy, supply and demand, economic growth, productivity and living standards, GDP and unemployment and the role of the Federal Reserve. The course will also feature enrichment activities, weekly simulations and periodic field trips to participate in competitive activities with schools from around the area.

Honors – 5 Credits – Full Year

Prerequisite for Honors: Average grade of "B-" in Honors United States History II OR

Average grade of "A-" in College Prep United States History II

Requirement for Honors: Summer reading project due by the first day of school

PSYCHOLOGY (Grade 12)

This yearlong course is designed to provide students with an overview of historical and contemporary theory and practice in the study of human behavior. As such, students will engage in experimentation, projects, discussion and debate. Units of study include learning and motivation, sensation and perception, emotional, behavioral, social and moral development, abnormal behavior and social psychology. Students will also enjoy learning about their own personality, development and learning style.

College Prep – 5 Credits – Full Year

Honors – 5 Credits – Full Year

Prerequisite for Honors: Average grade of "B-" in Honors United States History OR

Average grade of "A-" in College Prep United States History II

Requirement for Honors: Summer reading project due by the first day of school

ART and IDEAS

Art and Ideas will train students in visual art skills through studio practice and an exploration of art history and theory. Art develops actively within historic contexts. This course examines these developments by uncovering their history and learning the practice of art forms from around the world. Students can expect history and theory to be balanced with studio art components. At the end of this course, students will have a working understanding of movements throughout art history and a working reservoir of visual art skills. This course satisfies the Fine Arts course requirement and also counts as a History elective course.

College Prep – 5 Credits – Full Year
Prerequisite for College Prep: Passing grade in United States History

Secondary Program of Studies

SUCCESSFUL CITIZENSHIP THROUGH CIVICS, PERSONAL FINANCE, AND SERVICE LEARNING PROJECTS (GRADE 12)

This course will be a dynamic exploration of three critical components of successful citizenry in the modern world: civic engagement, financial literacy, and service to others. Topics covered will include rights and responsibilities, financial and political literacy, engagement in government, community groups & financial markets, and current events in politics & the economy. The course is primarily project-based concentrating both on individual success and strong collaboration with peers. The course will use multiple web-based platforms to engage in content and include an ex-tended multi-faceted service learning component which has the possibility to be applied to the MHS community service requirement.

College Prep – 5 Credits – Full Year

Prerequisite for College Prep: Passing grade in United States History

UNITED STATES GOVERNMENT AND LAW (Grade 12)

The primary purpose of this course is to develop an understanding of the roles that government and law play in American life. The course expands on the review of issues featured in the grade 11 United States History course to include topics such as: judicial review, civic responsibility, federalism, political parties, and civil, criminal, and constitutional law. The course will also place heavy emphasis on understanding the structure, key elements and functions of the US legal system. Students will be expected to participate in a real-life practicum through the Mock Trial Competition. Students will also have opportunities to learn about the law in daily life through assignments, simulations and discussion based activities on essential Constitutional rights, equal protection under the law, criminal procedure and criminal defense, and trial practice in Massachusetts and at the Supreme Court level. Students taking this course will be required to participate in The Massachusetts Bar Association's Mock Trial Program which has a minimum of two afterschool requirements.

College Prep – 5 Credits – Full Year

Honors – 5 Credits – Full Year

Prerequisite for College Prep: Passing grade in United States History

Prerequisite for Honors: Average grade of “B-” in Honors United States History OR

Average grade of “A-“ in College Prep United States History II

Requirement for Honors: Summer reading project due by the first day of school

Secondary Program of Studies

Advanced Placement Courses

ADVANCED PLACEMENT EUROPEAN HISTORY (Grade 10)

The Advanced Placement European History course examines the development of European History from 1300 to the present day. The class follows a standardized curriculum established by the College Board and can be taken in lieu of US History I. Students electing this course are expected to take the Advanced Placement examination in May and, depending on the results may be granted credit and/or appropriate placement by a participating college.

Advanced Placement – 5 Credits – Full Year

Prerequisite: Average grade of "A-" in Honors World History

Requirement: Summer reading project due by the first day of school

ADVANCED PLACEMENT UNITED STATES HISTORY (Grade 11)

This Advanced Placement course follows a standardized curriculum established by the College Board and can be taken in lieu of United States History II. Students electing this course are expected to take the Advanced Placement examination in May and, depending on the results may be granted credit and/or appropriate placement by a participating college.

Advanced Placement – 5 Credits – Full Year

Prerequisite: Average grade of "A-" in Honors World History II OR

Average grade of "B-" in Advanced Placement European History

Requirement: Summer reading project due by the first day of school

Secondary Program of Studies

ADVANCED PLACEMENT HUMAN GEOGRAPHY (Grade 12)

This is an Advanced Placement course for highly motivated interested in studying human, social and political activity at global and regional scales, and the causes and consequences of those activities. Specific topics covered will include population, natural resources, agriculture, economic activity, urban and rural settlements, and cultural phenomena. Special attention will be paid to the role that globalization plays in altering patterns of human activity at multiple scales. The primary objectives of this course are to introduce human geography as a field of inquiry and teach you about the patterns of human activity that are most important at global and regional scales. By the end of the course, you should have a greater understanding of human social, political and economic activity, and the impact it has on the global society.

Advanced Placement – 5 Credits – Full Year

Prerequisite: Average grade of "A-" in Honors World History II or Honors United States History OR

Average grade of "B-" in AP United States History or AP European History

ADVANCED PLACEMENT PSYCHOLOGY (Grade 12)

This elective course is for highly motivated Medford High School seniors who are interested in taking the Psychology Advanced Placement examination in May. This course will follow the curriculum established by the AP College Board, which will include the content areas: history of psychology, research methods, biology of behavior, sensation and perception, consciousness, learning, gender, cognition, motivation and emotion, developmental psychology, personality, stress and health, abnormal psychology, social psychology and mental health.

Advanced Placement – 5 Credits – Full Year

Prerequisite: Average grade of "A-" in Honors United States History

Requirement: Summer reading project due by the first day of school

Secondary Program of Studies

ADVANCED PLACEMENT & HONORS UNITED STATES GOVERNMENT AND POLITICS (Grade 12)

This Advanced Placement course follows a standardized curriculum established by the College Board. Students electing this course are expected to take the Advanced Placement examination in May and, depending on the results may be granted credit and/or appropriate placement by a par-ticipating college. The course provides an analytical perspective on government and politics in the United States with a specific focus on the following: the constitutional underpinnings of U.S. gover -ment; political beliefs and behaviors; political parties, interest groups, and mass media; institutions of national government: the Congress, the presidency, the bureaucracy, and the federal courts; public policy; and civil rights and civil liberties. Students will study general concepts used to interpret U.S. politics and will analyze constitutional principles through specific case studies.

Advanced Placement – 5 Credits – Full Year

Prerequisite: Average grade of “A-” in Honors World History II OR

Average grade of “B-” in AP United States History or Advanced Placement European History

Requirement: Summer reading project due by the first day of school

ENGLISH LEARNERS

The English Learners (EL) Department provides instruction for students who need to reach English proficiency in order to participate fully in the academic and social life of the school. The department offers a full range of English Language Development (EL LA courses) as well as sheltered instruction in Mathematics, Science and Social Studies.

EL Student Placement

English Learner students in Grades 9-12 will be placed in the appropriate English Language Proficiency (ELP) class as their English Class. The classes are broken into four levels: EL LA 1, EL LA 2, EL LA 3, EL LA 4/5, or EL CTE

Initial English Language Proficiency (ELP) is determined by ELP testing at the Assessment Center at Medford High School. In subsequent years, students are assessed annually using ACCESS for ELLs 2.0 to determine ELP. New placement decisions are made each year based on student performance on the ACCESS 2.0, MCAS assessments, locally administered diagnostic language assessments, and other district determined measures

EL LA 1 – (Grades 9 – 12)

This is an English Language Development class for students at the Entering and Emerging stages of English language proficiency. Students will learn social and academic English while learning about American culture. This course will focus on listening, reading, writing and speaking skills with a focus on early literacy, vocabulary, grammar, receptive language and oral communication.

College Prep – 10 credits – 12 periods per cycle – full year

Secondary Program of Studies

EL LA 1.5 - (Grades 9 – 12)

This is an English Language Development class for students at the Entering and Emerging stages of English language proficiency who have successfully passed the core requirements of EL LA 1, but need more time before transitioning to EL LA 2. Students will expand upon their social and academic English while continuing to learn about American culture. This course further develops students' literacy while increasing listening, reading, writing and speaking skills with a continued focus on vocabulary, grammar, receptive language and oral communication.

College Prep – 10 credits – 12 periods per cycle – full year

EL LA 2 - (Grades 9 – 12)

This course is for students who are at the Emerging and Developing stages of English language development. Students at this level receive sheltered instruction in all classes which are designed to further develop students' academic skills in listening, reading, speaking and writing skills. The curriculum is a continuation of EL LA 1, with increased complex demands and a focus on reading strategies and writing for a variety of genres.

College Prep – 10 credits – 12 periods per cycle – full year

EL LA 3 - (Grades 9 – 12)

This course is for students who understand most conversational and academic English spoken at a native pace. The students are at the Developing and Expanding levels of language development, and this course has a rigorous focus on academic grade-level language skills in listening, reading, writing and speaking. Students engage in research writing and learn the academic skills necessary for literary analysis.

College Prep – 10 credits – 12 periods per cycle – full year

EL LA 4/5 - (Grades 9 – 12)

This course is for students who approximate native level academic English skills. Students at the Expanding and Bridging levels will study similar topics to mainstream English classes, but with teaching practices that include advanced English language development curricula to boost students' productive and receptive language skills. Cognitively demanding listening, reading, and speaking, are a major component of this course with a strong focus on writing across the content areas.

College Prep – 5 credits – 6 periods per cycle – full year

EL CTE – (Grades 9 – 12)

This course is for students in a CTE program who understand most conversational and academic English. The students are at a mix of Emerging, Developing and Expanding levels of language development, and this course has a rigorous focus on academic, career and technical language skills in listening, reading, writing and speaking. Although not specific to a particular CTE course, students gain the linguistic support they need for their career or technical program.

College Prep – 5 credits – 6 periods per cycle – full year

Secondary Program of Studies

EL /SEI CONTENT AREA COURSES (Grades 9 – 12)

EL Core Content classes are offered in Math, Science and Social Studies for newcomer students and students who may have interruptions in their educations. The goal of these courses is to provide English learners with intensive supports to access the content in English. The curriculum is equivalent to the grade level course of study, but moves at a pace that is appropriate for students at the Entering and Emerging stages of English Language development.

English learners at the transitional level of English Language Development are placed in content classes with teachers who have the Sheltered English Immersion (SEI) Endorsement from the Massachusetts Department of Elementary and Secondary Education. All classes meet one period per day.

EL Literacy – Grades 9 – 10

This course will help students who require support to increase their skills in the fundamental concepts of listening, speaking, reading, and writing in the English language. Students will focus on learning common letter patterns to increase their spelling skills and pronunciation of words. They will apply their learning to fiction and nonfiction readings to demonstrate an increased mastery in decoding, fluency, and comprehension as well as oral and written expression.

College Prep – 2 credits – 3 periods per cycle – full year

EL Foundational Math – Grades 9 - 10

This course is an introduction to Integrated Mathematics and is designed to support students who may have interruptions in their educations or students who may require additional mathematics background support. This includes introduction to whole numbers, operations of whole numbers, exponents, graphs, statistics, measurements, integers, introduction to fractions, and operations of fractions. Problem solving will be part of all units and this course supports early literacy for students using the WIDA Standard: The Language for Mathematics.

College Prep – 5 credits – 6 periods per cycle – full year

EL Integrated Math 1 – Grades 9 – 12

This is the first course of a three-year college preparatory integrated math sequence. This course follows the Integrated Math Pathway in the Common Core State Standards articulated by the Massachusetts Curriculum Framework for Mathematics. This course integrates algebraic concepts with geometric concepts. The core curriculum follows Integrated Math 1, but provides language supports and linguistic scaffolds to support students at the foundational level of English Language Development using the WIDA Standard: The Language for Mathematics.

College Prep – 5 credits – 6 periods per cycle – full year

Secondary Program of Studies

EL Life Science – Grades 9 - 10

This course is an introduction to life science and explores the foundational principles of living things. Through this course, students develop the necessary academic vocabulary and basic understanding of a variety of living organisms, their life processes and their relationship to the environment. This course supports early literacy for students using the WIDA Standard: The Language for Science.

College Prep – 5 credits – 6 periods per cycle – full year

SEI Biology – Grades 9 – 12

This course emphasizes inquiry and lab-based experiences to explore the fundamental principles of living things. Students learn about the diversity of living organisms and their relationship to the environment. The core curriculum follows Biology I, but provides language supports and linguistic scaffolds to support students at the foundational level of English Language Development using the WIDA Standard: The Language for Science.

College Prep – 5 credits – 6 periods per cycle – full year

EL World History – Grades 9 – 10

Students study the history and geography of the civilizations and nations across the world while examining world cultures. Students will learn about the interactions among regions and governments and include topics such as immigration, war, conquest, colonization, trade, and culture. There is an emphasis on primary sources and students will develop research questions and conduct inquiries with these primary sources. The core curriculum follows World History curriculum, but provides language supports and linguistic scaffolds to support students at the foundational level of English Language Development using the WIDA Standard: The Language for Social Studies.

College Prep – 5 credits – 6 periods per cycle – full year

EL US History I – Grades 9 – 11

Students will explore and analyze the history of the United States between the 17th and 19th centuries. They will gain an exposure to events outside the United States and understand their impact on the development of the United States during this time period. There is an emphasis on primary sources and students will develop research questions and conduct inquiries with these primary sources. The core curriculum follows US History I curriculum, but provides language supports and linguistic scaffolds to support students at the foundational level of English Language Development using the WIDA Standard: The Language for Social Studies.

College Prep – 5 credits – 6 periods per cycle – full year

Secondary Program of Studies

SPECIAL EDUCATION

Students requiring special education services are first identified through the eligibility process and recommendations are made and documented on a student's Individualized Education Plan (IEP). All students regardless of learning challenges have access to the Medford High School's curriculum. Each student's team recommends accommodations or schedule adjustments. The purpose of these recommendations is to maximize student success.

Services are individualized based on disability-related needs and are recommended by an IEP team. These services may include co-teaching, inclusion opportunities, and related services (counseling, occupational therapy, physical therapy, speech and language and social skills). Specialized programming can include Resource Room Learning Centers,Learning Group Program, Therapeutic Learning Program, ACCESS High School program, Project Transition, or a combination of above services.

Listed below are the current offerings for Medford High School and Medford Vocational Technical High School.

RESOURCE ROOM LEARNING CENTERS

Small group academic instruction for Reading, ELA, Math, Science, Social Studies and Reading and Writing Across the Curriculum. Reading courses are scientifically-based and are a highly structured literacy program. Curriculum is fully aligned with the Massachusetts Curriculum Frameworks, with course specific skill focus.

Secondary Program of Studies

LEARNING GROUP PROGRAM

Curriculum aligned with Massachusetts Curriculum Frameworks, modified based on student needs, grade level academic courses including ELA, Reading, Math, Social Studies and Science, plus elective courses to build transition skills, while addressing executive functioning, organizational and social skills. Use of rule-based reading and writing programs are prominently woven within the program curriculum. With team recommendation and application process, students access MVTHS CTE programs and related shops.

THERAPEUTIC LEARNING PROGRAM

Instruction to address individual learning needs of students with moderate-severe social, neurological, health or mental health disorders. Individual counseling, group counseling, and pragmatic language instruction are integrated elements. Facilitated inclusion opportunities are embedded within the program.

ACCESS PROGRAM

Highly staffed intensive program that addresses and accommodates individual students. Curriculum is aligned to the Massachusetts Curriculum Frameworks as the access/entry skill levels of complexity. Methodology includes strong multi-disciplinary collaboration between instructional staff, related service providers and parents. Students participate in standards-based instruction while addressing social, motor and communication skills. Opportunities for facilitated inclusion components as well as an enriched transitional component to facilitate community access, prevocational work skills, via on-campus and off-campus training opportunities, as well as focus on transition planning with community-based agencies.

Secondary Program of Studies

PROJECT TRANSITION

This is a post-high school opportunity for students who will continue within a school program between the ages of 18-22. Curriculum is focused on individual student transition from school to adult life. Each student designs an individual transition plan, which is implemented through the collaborative efforts of the student, school team, family and state agencies as appropriate.

CURTIS TUFTS HIGH SCHOOL

Public therapeutic day school program with Clinical services. Instruction to address individual learning needs of students with moderate-severe social, neurological, health or mental health disorders. Individual/group counseling, and pragmatic language instruction are integrated components. Facilitated transition to HS/MVTHS CTE programs as students demonstrate progress towards goals.

INDIVIDUAL HOME/HOSPITAL INSTRUCTION

TEAMs may determine the need for individualized instruction when other options are not deemed appropriate. Medical conditions require a physician's request for home/hospital tutorials before they can be implemented.

Secondary Program of Studies

NON-CORE SUBJECTS

Classes in Fine Arts, Health, and Physical Education will receive A - F letter grades. All other non-core subjects will be graded on a Pass/Fail basis.

Secondary Program of Studies

FINE ARTS

All students must take and pass a Fine Arts course (music or art) for graduation.

Those who are planning advanced studies in art, as well as those who are interested in art as a source of income, personal development or academic enrichment, will find educational opportunities available to them. Instruction in all courses builds solid technical skills on a foundation of the principles of design. Students may sample an art discipline through an introductory level class, or explore a medium in depth through advanced level courses. Students who complete a program of advanced level classes will produce the high quality work demanded for admission to most art schools and universities. Students who are planning careers in music or who are interested in acquiring the skills and benefits music study provides will find educational opportunities available to them.

All Fine Arts classes will receive an A- F letter grade unless indicated otherwise.

ART

ART & IDEAS (Grade 12)

Art and Ideas will train students in visual art skills through studio practice and an exploration of art history and theory. Art develops actively within historic contexts. This course examines these developments by uncovering their history and learning the practice of art forms from around the world. Students can expect history and theory to be balanced with studio art components. At the end of this course, students will have a working understanding of movements throughout art history and a working reservoir of visual art skills. This course satisfies the Fine Arts course requirement and also counts as a History elective course.

College Prep – 5 Credits – Full Year
Prerequisite for College Prep: Passing grade in United States History

ADVANCED PLACEMENT STUDIO ART (Grades 11 and 12)
The AP Art and Design course is designed for students who are seriously interested in the practical experience of art and have expressed an interest in completing the AP Drawing or the AP 2-D Art and Design course work The courses are not based on a written examination; instead, in addition to other course requirements, students submit a portfolio of work and written statements for College Board review. Course work is evaluated based upon the standards determined by the Advanced Placement Program of the College Board. Following submission of their portfolio, students curate, prepare and hang their artwork in an exhibit or Group Show towards the middle of May.

Through studio practice, application of design concepts and informed decision making, these students will assemble a body of artwork that demonstrates a high level of quality and growth, over time, in content, technique, and process. Course requirements include an after-school seminar held monthly to allow students an opportunity to talk to artists, critique their work as a group, visit galleries, museums and other studios.

A list of requirements for each of the above portfolios can be found on line at:collegeboard.org/artanddesign-ced

Advanced Placement--5 Credits Total -- Full Year Prerequisite: A minimum of one year of previous studio experience and teacher permission

Secondary Program of Studies

Drawing from Art History

This course will allow students to expand their drawing skills while engaging with some of the most interesting pieces of art from human history. Each class will consist of a drawing session and collaborative discussion about a historic art piece. We will also engage in class activities to develop our perceptive and creative abilities. Over the course of the year we will each build our own art history sketch/textbook.

College Prep – 2 credits – Full year

Photography

Students will learn processes and techniques for taking and printing successful photographs. Along the way we will engage with historic photographers, movements, and philosophies about the artistic process. Most of the work will be digital using phone cameras, but we will also be working with 19th century photographic media.

College Prep – 2 credits – Full year

COMPREHENSIVE ART I (Grades 9-12)

The course is designed for students who are interested in learning more about traditional materials (pencil, pen and ink, watercolor, oil pastels, pastels, acrylic paint, and colored pencil. Areas of concentration are drawing, painting, and printmaking. Students will learn techniques, tools, and applications that will enable them to develop a body of work that expresses their unique responses to open ended, creative projects. It encourages experimentation balanced with the more guided development of technical skills with specific art materials. The course also offers exposure to art history and how to understand and discuss works of art that you may have never seen before.

College Prep -- 4 Credits -- Full Year

COMPREHENSIVE ART II (Grades 10-12)

This is an in depth continuation of Comprehensive Art I. Students will expand their knowledge about art making with more emphasis on individual expression and creative approach. In addition to improving their drawing and design skills, students will create art requiring personal interpretation and exploration. Assignments are designed to address art themes and topics through drawing, painting (acrylic and oil), printmaking (silkscreen and intaglio), collage, design, and mixed media. The art experiences in Comprehensive Art II have both fine and commercial art applications.

College Prep -- 4 Credits -- Full Year
Prerequisite: Comprehensive Art I

Secondary Program of Studies

COMPREHENSIVE ART III (Grades 11-12)

This course is for students who have taken Comprehensive Art II and who have identified art as an area in which they have strength and abundant interest. Some students taking this course are beginning a process for developing an art portfolio for art school and/or college admission. A wide range of two-dimensional art materials will be explored in a structured studio setting. Artistic independence will be encouraged with opportunities to visit museums and galleries and Artist Open Studios.

College Prep -- 4 Credits -- Full Year

Prerequisite: Comprehensive Art II

COMPREHENSIVE ART IV (Grade 12)

The production and preparation of artwork for the student portfolio is the primary involvement for many Comprehensive Art IV students in the first semester. This complements the work begun in Comprehensive Art III. The emphasis for each project is on the exploration of ideas and experimentation with art materials. The course includes visits to museums and galleries, and Artist Open Studios.

College Prep -- 4 Credits -- Full Year

Prerequisite: Comprehensive Art III

DRAWING (Grades 9-12)

Through a series of projects that involve both observation and imagination, students will learn how to draw more effectively. Students study a variety drawing techniques requiring the development of essential coordination of the hand, eye, and mind. Students will become familiar with different drawing media. The class will engage in group reflections to better understand what makes a drawing successful.

College Prep – 4 credits – Full Year

DESIGN (Grades 10-12)

Students are introduced to and will apply the elements of art design (line, shape and mass, texture, color, value, and space) while exploring the principles of contrast, unity and variety, balance, proportion and scale, movement, and figure/ground relationships. The class will teach students skills that can be used to further their Design journey and/or apply to their every day lives.

College Prep -- 4 Credits -- Full Year

Secondary Program of Studies

CERAMICS I (Grades 9-12)

Ceramics uses the medium of clay to create work that is both functional and sculptural. All methods of hand-building are taught in-depth. Instruction is offered in a wide variety of ceramic painting techniques using both glazes and under-glazes. Projects will focus on design, visual symbolism, and imagination. Students will be asked to reflect on their values, creative development and contemporary issues throughout the process of developing their work.

College Prep – 4 Credits – Full Year

CERAMICS II (Grades 10-12)

Ceramics II is for students who have a serious interest in creating functional and sculptural work out of clay. Students will further develop the technical skills established in Ceramics I as they create work that reflects issues of personal and societal importance. In addition to the elements and principles of design will be stressed in all projects. Students enrolled in Ceramics II will also work with the potter's wheel and explore high fire materials.

College Prep – 4 Credits – Full Year

Prerequisite: A grade of "B-" in Ceramics I or teacher recommendation

CERAMICS III (Grades 11-12)

Ceramics III is an independent study class for students who have a serious interest in Ceramics. Ceramic III students will identify a central motif or concept they wish to explore in-depth, either functional or sculptural, and then create a portfolio quality body of work that demonstrates mastery of technique, breadth of ideas, and development of design concepts. A portfolio of work meeting requirements for college admission will result from this class.

College Prep – 4 Credits – 4 Periods per Cycle – Full Year

Prerequisite: Permission only, grade A- or better in Ceramics II

SCULPTURE Grades 9-12)

This course is an investigation of creating form in three dimensions, with an emphasis on experimentation. The class is designed to challenge students to take artistic risks in a variety of media. Students will have the opportunity to sculpt and build imaginatively, developing expression and skill. They will gain a working knowledge of materials and processes, while exploring significant social, political, historic and personal issues using their own creative voices.

College Prep – 4 Credits – Full Year

Secondary Program of Studies

MUSIC

BAND (Grades 9-12)

This course is designed for students who play a band instrument. All students must attend nighttime rehearsals and must participate in ALL Medford High School football games, parades, (Patriots' Day, Memorial Day, graduation, competitions, concerts, and band activities that occur after school hours as outlined in the MHS Band Handbook.

College Prep - 4 Credits – Full Year

CHORUS (Grades 9-12)

This course is open to all students who want to sing. The chorus will study and sing a variety of music from past to present. Attendance at concerts, rehearsals, and musical activities that meet after hours is required. In addition, all Chorus students must attend one weekly after-school rehearsal.

College Prep - 4 Credits – Full Year

ORCHESTRA (Grades 9-12)

This course is for those students who have had previous experiences and lessons in violin, viola, cello or string bass. No beginners are eligible without prior permission of the orchestra director. Wind and percussion players are to be admitted only after taking and passing an audition. Attendance at rehearsals, programs, concerts, and musical activities after school hours is required. All Orchestra students must attend one weekly nighttime rehearsal.

College Prep - 4 Credits – Full Year

GUITAR 1 (Grades 9-12)

Guitar class is designed for the beginning guitar student who has never played guitar before, and/or wants to learn how to read music. Students will learn how to read both standard notation and TAB notation. They will also learn chords, a variety of guitar riffs and techniques, and gain a basic understanding of improvisation. *Students will be allowed to use school-owned acoustic guitars during class. However, students are strongly encouraged to own their own acoustic guitar at home for practicing.

College Prep – 4 credits – Full year

Secondary Program of Studies

GUITAR Ensemble (Grades 9-12)

This course is for students who have previous experience and/or lessons in guitar or bass. This class will be primarily performance based, rehearsing two, three, and four part arrangements for guitar in many genres. Students will be required to perform in concerts as part of their grade. (Students will have access to a guitar in class but are encouraged to practice outside of school as well)

College Prep – 4 credits – Full year

INTRODUCTION TO AMERICAN MUSICAL THEATER (Grade 10-12)

The American Musical Theatre is a course of study for the serious student interested in expanding skill and knowledge in the area of acting technique and the study of theater as an art. The subject matter will range from stage terminology, structure of plays, and early theatrical history to vocal and movement training for the actor. Also included will be acting (improvisation, character analysis, and duet/group acting) as well as stage design and construction, lighting, costuming and makeup. Actors are required to create and maintain a professional acting portfolio. Students enrolled in this class are strongly encouraged to participate in each of the school's theatrical productions.

College Prep - 4 credits - Full Year

ADVANCED TECHNICAL THEATER PRODUCTION (Grades 9-12)

Technical Theater Production is a "hands on" course exploring the organizational demands, creative ingenuity, and collaborative methods essential for good theater production. Students will study the history and types of theater and the scope of our own theater. Students will receive training in set design, scenic art design, prop construction, set construction, light rigging and operation, sewing and costume design, make-up design and application, theater business management, and sound design and operation. Students enrolled in this class will be expected to take an active part in the school's theatrical productions, including a minimum of 20 after-school hours. (Pass/Fail)

College Prep – 2 credits – Full year

PERCUSSION I (Grades 9-12)

Percussion I class will introduce students to reading and writing rhythms and applying them to percussion instruments. Students will learn basic skills as they apply to snare drum and other pitched and non-pitched instruments. The class will give students the opportunity to perform and practice independently, as well as with an ensemble.

College Prep – 4 credits – Full year

MUSIC TECHNOLOGY (Grades 10-12)

Students will discover and explore introductory concepts used in music recording, sequencing, and composition using a variety of music software. Prior musical experience in instrumental or vocal training is helpful and suggested, but not required.

College Prep – 4 Credits – Full Year

Secondary Program of Studies

HEALTH

Students are required to complete two complete years (four semesters) of health education in order to meet graduation requirements. Students alternate health education with physical education during each of their four years at Medford High School.

All Health classes will receive A - F grades.

Introduction to Health 1.0

For freshmen. This course is designed to introduce students to personal health concepts. Topics covered will include: Mental health awareness, healthy relationships, disease prevention, and sex education.

1 Credits – 2 Periods per Cycle – Half Year

Healthy Decision Making 1.0

For sophomores. This course introduces the student to healthy decision-making. Topics covered in-clude: How to deal with peer pressure, refusal skills, communication skills, drugs, alcohol & tobacco education, basic nutrition, body image and fitness.

1 Credits – 2 Periods per Cycle – Half Year

Healthy Lifestyles

For juniors. This course provides students with the tools needed to live a healthy lifestyle. Topics covered include: Stress management, goal setting, advanced nutrition, and consumer health.

1 Credits – 2 Periods per Cycle – Half Year

Transitioning From Adolescence into Adulthood

For seniors. This course provides students with the skills necessary for the transition from adoles-cence to adulthood. Topics covered include: Sexuality, violence prevention, conflict resolution, self-advocacy, accessing health & community health.

1 Credits – 2 Periods per Cycle – Half Year

EMR - Emergency Medical Response
This is a major course offered to juniors and seniors who are interest in emergency response career training.

5 Credits - Full Year

Health Education

9th grade - Introduction to Health

10th grade - Healthy Decision Making

11th grade - Healthy Lifestyles

12th grade - Transitioning from Adolescence into Adulthood

Secondary Program of Studies

PHYSICAL EDUCATION

Students are required to complete two years of Physical Education during their four years at Medford High School. This includes freshman physical education, sophomore physical education and two electives. All Physical Education classes will receive an A - F letter grade.

The comprehensive goals of the Physical Education Program are to emphasize the mental, emo-tional and social aspects of living, as well as the physical development aspects necessary for a sat-isfying and active life. The program emphasizes the relationship of physical activity to the physical, mental, social and emotional maturity of the students. Both present and future physical and recre-ational needs of students are met through: (1) participation in a wide variety of physical activities that will lead to the development of coordination, strength, skills and endurance; (2) participation in a variety of physical activities that have continuing lifetime values; and (3) experiences designed to develop knowledge, understanding, and attitudes that result in desirable practices necessary to maintain physical, social, emotional and mental health.

Students in Physical Education or Fitness classes are expected to change prior to each class and participate to the best of their ability. Grades are determined through attendance, proper attire, assessments and participation.

Student athletes must participate in their scheduled Physical Education class in order to participate in an athletic practice, competition, or game that day.

FRESHMAN PHYSICAL EDUCATION- FOUNDATION OF FITNESS: This course is designed to introduce the student to the principles of fitness. Emphasis is on the scientific basis for setting up and engaging in personalized physical fitness programs. Students will learn basic anatomy, cardiovascular exercise routines and the proper form for strength & flexibility exercises for each muscle group. Upon completion, students should be able to set up and imple-ment an individualized physical fitness program. Students will also be introduced to the Medford High School pool and learn basic swimming and water safety.

1 Credit – 2 Periods per Cycle – Half Year

Secondary Program of Studies

SOPHOMORE PHYSICAL EDUCATION- PERSONAL WELLNESS ACTIVITIES

This course is designed to introduce the student to the seven dimensions of wellness. Students will learn about the dimensions of wellness by participating in activities that address leadership, decision-making, commitment, risk-taking, stress management, compassion, and personal fitness. These activities will help to build personal wellness, self- esteem, group support, initiative and responsibility. Students will also learn basic CPR in this class.

1 Credit – 2 Periods per Cycle – Half Year

JUNIOR & SENIOR PHYSICAL EDUCATION- STUDENTS' CHOICE

Students must choose 1 elective per year (1.0 credit total). See below:

UNIFIED PHYSICAL EDUCATION COURSE

This course combines students of all abilities to participate in developmentally appropriate activities including lifetime activities, physical fitness, and sport. Students will work together to increase competence and confidence in a variety of physical activities. Through ongoing leadership opportunities, members of this course will be empowered to help create a more inclusive and accepting school environment for all students.

1 Credit – 2 Periods per Cycle – Half Year

FIRST AID & CPR

Students will learn how to recognize and treat life-threatening emergencies, including cardiac arrest and choking for adult, child and infant victims. Students also learn to recognize the warning signs of heart attack and stroke in adults and breathing difficulties in children and basic first aid/treating athletic injuries. Successful completion of this class will result in American Red Cross certification.

1 Credit – 2 Periods per Cycle – Half Year

GET FIT

This course will include a variety of fitness activities such as fitness walking, fitness hiking, step aerobics, circuit training, pilates, yoga, jogging and core strengthening. Classes consist of a warm-up, cardio training, cool down and stretching, as well as muscle conditioning exercises. Nutrition and weight-control con-cepts may also be discussed.

1 Credit – 2 Periods per Cycle – Half Year

Secondary Program of Studies

LIFETIME ACTIVITIES

This course provides diverse offerings to meet the individual needs of all students and to develop competency in individual and dual activities. Improved fitness is a goal through a variety of activ - ties. Activities may include: golf, pickle ball, snowshoeing, ultimate frisbee, badminton, tennis, bocci and volleyball.

1 Credit – 2 Periods per Cycle – Half Year

OUTDOOR PURSUITS

This course introduces the student to outdoor activities including: fitnes walking, snowshoeing. PROJECT WILD/PROJECT EAGLE & hiking.

1 Credit – 2 Periods per Cycle – Half Year

TEAM SPORTS

Instruction and games for the individual who enjoys cooperative and a competitive physical environ-ment. Among the activities are basketball, floor hockey, team handball, volleyball, flag football, soccer, and whiffle ball. This course may also include coaching techniques, sports management and officiating.

1 Credit – 2 Periods per Cycle – Half Year

YOGA

This course is designed to introduce students to the basic, intermediate, and advanced postures, breathing techniques, and relaxation methods of yoga. Students will begin to experience the benefits of stretching, moving, and breathing freely as they relieve built up stress and learn to relax. Students will experience the benefits of using props and advancing their yoga practice.

1 Credit – 2 Periods per Cycle – Half Year

WATER GAMES 1.0 credit

This course is designed for the student who is comfortable in an aquatic environment. Water Safety/Games include the basics of some water safety and some water sports such as water polo, volleyball, basketball, and Frisbee.

1 Credit – 2 Periods per Cycle – Half Year

Secondary Program of Studies

COOPERATIVE GAMES 1.0 credit

Students will learn games that focus on communication, cooperation, teamwork, trust and problem solving. Students will also focus on the social and physical development of preschool age children. The students will observe, assist and teach young children in a wide range of early movement activities. The class will include coverage in the areas of nutrition, games, and personal wellness.

1 Credit – 2 Periods per Cycle – Half Year

LIFEGUARD TRAINING

Provides entry-level participants the knowledge and skills to prevent, recognize, and respond to aquatic emergencies and to provide care for breathtaking and cardiac emergencies, injuries and sudden illness until EMS personnel take over.

Prerequisites: Minimum age is 15, swim 300 yards continuously, tread water for 2 minutes using only your legs, complete a timed event within one minute (swim 20 yards, surface dive to a depth of 7 to 10 feet, retrieve a 10 pound object, return to the surface and swim 20 yards backstroke to the start point, exit the water without using steps or the ladder.) Participants who successfully complete the Lifeguarding course receive an American Red Cross certificate for Lifeguarding/First Aid/CPA/AED, valid for 2 years.

1 Credit – 2 Periods per Cycle – Half Year

Secondary Program of Studies

MEDIA & TECHNOLOGY

Computer Science Principles (grades 10-12) AP® or Non-AP®

The Computer Science Principles (CSP) curriculum is a full-year, rigorous,entry-level course that introduces high school students to the foundations of modern computing. The course covers a broad range of foundational topics such as programming, algorithms, the Internet, big data, digital privacy and security, and the societal impacts of computing. There are no formal prerequisites for this course, though the College Board recommends that students have taken at least Algebra 1. The curriculum does not assume any prior knowledge of computing concepts. It is intended to be suitable as a first course in computing though students with a variety of backgrounds and prior experiences will also find the course engaging and with plenty of challenges such as becoming proficient in the Javascript programming language.

College Prep and AP - 5 Credits – 6 Periods per Cycle – Full year

Note:
Students can receive Math or Science credits for this class (but it does not replace math or science required courses)

Digital Literacy

The Digital Literacy course introduces students to the foundations of digital literacy in the 21st century. In this course, students will learn about the role technology plays in various fields of work, enabling them to better plan their careers in the twenty-first century. Students will also learn to develop their computational thinking and problem-solving skills further as they engage in digital content creation. Topics include: Computing and Society, Digital Tools and Collaboration, Computing Systems, and Computational Thinking.

College Prep - 4 Credits – 4 Periods per Cycle – Full year

Digital Wellness and Wellbeing

In this course, students will learn the importance of digital wellness and how to navigate modern technology and digital content healthily and productively. Students will also learn how to adopt digital wellness and organization practices that can enable them to focus on their schoolwork and promote well-being. This course covers digital emotional intelligence, digital mindfulness, digital dependency, online privacy, digital citizenship, and evaluating content for accuracy and perspective, among other topics.

College Prep - 2 Credits – 2 Periods per Cycle – Full year

Secondary Program of Studies

Digital Literacy and Wellness for English Language Learners

Digital Literacy and Wellness for English Language Learners (ELL) aims to advance students' linguistic competence through digital citizenship, digital wellness, digital technology, digital tools & collaboration. This course also introduces students to digital resources for English language learners, approaches and practices related to digital empathy, computing and society, digital citizenship across cultures, and computational thinking for ELL students.

College Prep - 4 Credits – 4 Periods per Cycle – Full year

Game Design (grades 10-12)

The Game Design course introduces students to the fundamentals of creating real-world 3D video games. Students learn about the process of designing and developing games by using integrated development environments such as Unity and/or Game Lab. Students learn about the game development industry and plan, design, and create their own 3D games. Throughout this course students become more familiar with the C# coding language.

College Prep - 4 Credits – Full year

Student Technology Help Desk (grades 10-12) I, II, III

The Student Technology Help Desk course is a hands-on study of technology integration, User Experience (UX), and Customer Experience (CX) in an educational context. In this course, students use Computational Thinking principles, a problem-solving process that requires individuals to think in new ways to enable the effective use of computing to solve problems and create solutions. They also learn the foundations of documentation and frameworks to define the best approach to addressing or solving technology problems. Students assess technical issues and determine the best approach to addressing or solving the problem with the professionalism of a 'real world' help desk

College Prep - 4 Credits – 4 Periods per Cycle – Full year

Note: students in tech help desk II and III can be scheduled to be in the library for independent work during any period of the day.

Secondary Program of Studies

ACADEMIC SUPPORT

MATH STRATEGIES I (Grade 9)

This course is designed to support students who are simultaneously enrolled in an Integrated Math 1 course, and is open to students based on teacher and department recommendation. It is not con-sidered as one of the courses in the 4-year requirement for graduation. Strongly Recommended: Graphing Calculator

College Prep – 2 Credits – Full Year

MATH STATEGIES (Grade 10-12)

This course is designed to support students who are simultaneously enrolled in an Algebra 2 course, and is open to students based on teacher and department recommendation. It is not con-sidered as one of the courses in the 4-year requirement for graduation. Strongly Recommended: Graphing Calculator

College Prep – 2 Credits – Full Year

CHEMISTRY CHALLENGE (Grades 11-12)

This course is designed to support students who are simultaneously enrolled in a Chemistry course, and is open to students based on teacher or department recommendation only.

College Prep – 2 Credits – Year

LITERACY CHALLENGE (Grades 11-12)

This course is designed to support students in literacy. This open to students based on teacher and department recommendation. It is not considered as one of the courses in the 4-year requirement for graduation.

College Prep – 2 Credits – Year

Secondary Program of Studies

DIVERSITY & COMMUNITY ENRICHMENT (Grades 10 - 12)

This course is designed for students who are interested in planning and executing projects and events that will promote diversity, acceptance and equality at Medford High School. Students will be responsible for attending occasional night events in addition to working on projects outside of the classroom setting.

College Prep - 2 Credits – Full Year

MCAS BIOLOGY PREP (Grades 10-12)

This course is designed for students who had a Failing performance level result on a previous MCAS exam or are interested in receiving additional support in preparation for the exam. It will provide students with additional preparation for the Grade 10 Biology MCAS exam or Grades 11-12 Biology MCAS mid-year exam. Students will review key concepts and skills from a Biology course and will have additional practice with Biology multiple-choice and open response MCAS questions.

College Prep – 2 Credits – Year

MCAS ENGLISH REVIEW (Grades 10 - 12)

This course not only offers students an intensive review of the learning standards in the Massachusetts English Language Arts Framework, but also helps them to understand and use strategies in preparation for the English Language Arts MCAS Examination. Ninth and tenth graders who have been determined to be at risk of not meeting the proficient standards on the English Language Arts MCAS Examination are required to enroll in MCAS English Review during the school day or take a similar course after school or on the weekend.

College Prep – 2 Credits – Full Year

Secondary Program of Studies

MCAS MATH REVIEW (Grade 10)

This course provides students an opportunity to review mathematics concepts and skills in context, practice with the types of questions that students will encounter on the Grade 10 MCAS examination, and test-taking strategies. This course is required for students who, in grade eight, failed the MCAS test in Mathematics and recommended for students who never participated in MCAS testing. It is not considered as one of the courses in the 4-year requirement for graduation. Strongly Recommended: Graphing Calculator

College Prep – 2 Credits – Full Year

MCAS MATH REVIEW (Grades 11-12)

This course provides students with an opportunity to review mathematics concepts and skills in context, as well as in the types of questions that students will encounter on the MCAS Retest and/or MCAS EPP examinations. This course is highly recommended for students who, as tenth graders, failed the MCAS test in Mathematics or are currently on an Educational Proficiency Plan. It is not considered as one of the courses in the 4-year requirement for graduation. Strongly Recommended: Graphing Calculator

SPORTS STATISTICS (Grades 10-12)

During this course students will conduct various statistical studies by analyzing data from many different sports and activities. This data will be organized into a spread sheet and evaluated mathematically to draw various conclusions. Statistical theory and skills will be developed using innovative research associated various sports. Students will make extensive use computer applications.

College Prep – 2 Credits – Full Year

Secondary Program of Studies

ACADEMIC PATHWAY MINI ELECTIVES

American Pop Culture History: A Study of the United States since World War (Grades 10-12)

Understanding the history of the United States in the post-World War II world can be difficult wit - out learning about popular culture. Some view pop culture as trivial or unimportant, but it can tell us much about the political, economic and social factors that have shaped the history of the United States over the last 60 years. In this class students will gain an appreciation for American culture and history while examining examples of film, movies, television, art, literature, music and more. This course is open to grades 11 & 12 students. This class will run in alternating years.

College Prep – 2 Credits – Full Year

CIVICS (Grades 10 - 12)

This class provides a background for the understanding of United States citizenship and the foundations and operation of American government. Students will apply this understanding the understanding of Constitutional principles to current event topics relevant to the nation.

College Prep – 2 Credits – Full Year

CIVIL RIGHTS MOVEMENT OF THE 20TH CENTURY (Grades 10-12)

The civil rights movement was one of the most significant sources of social change in the United States during the 20th Century. Calls for freedom, respect, dignity, and equality under the law fueled the movement and forced national, state, and local governments to respond. In this course, students will learn about the rich historical background of the movement and will analyze the political and social dynamics of change of the period with a focus on the 1954-1985 time period. Students will explore the movement from many perspectives using, where possible, first-hand accounts from the people who lived during this important era in United States history. This class will run in alternating years.

College Prep – 2 Credits – Full Year

Secondary Program of Studies

BOOK CLUB (Grades 10 - 12)

This course provides students with an opportunity to select books of interest, read alone and engage in critical discussions with peers. With this course, students can increase their reading flue - cy, oral and written communication skills, active reading skills and love for literature. This course also supports the district literacy program and promotes the principles of Silent Sustained Reading (SSR), which research indicates is essential to creating life-long readers.

College Prep –2 Credits – Full Year

CONTEMPORARY ISSUES (Grades 10 - 12)

This course is conducted in a seminar format with a major emphasis on the self-directed learner. Students will be expected to apply what they have learned from earlier social studies courses (both in content and in skills) to an examination of the major issues, events, and personalities of the United States and the world. Topics studied will include, but not be limited to, population, immigration, affirmative action, terrorism, global economic competition, pollution, campaign finance reform an election analysis.

College Prep – 2 Credits – Full Year

COURT IN THE CLASSROOM (Grades 10 - 12)

Court in the Classroom is an elective course that introduces students to our Massachusetts legal system, and allows them to engage in critical thinking to conduct real trials. Students will collaborate to analyze evidence and witness testimony, construct legal arguments, develop opening and closing statements, and direct cross examination questioning. While this class would be an excellent addition to college applications and resumes, students will also develop strong critical thinking and public speaking skills. Students will also have an opportunity to participate in the statewide Mock Trial after-school club where they will compete against other schools in official trials managed by the Massachusetts Bar Association. This class will run in alternating years.

College Prep – 2 Credits – Full Year

Secondary Program of Studies

Poetry Workshop (Grades 10 - 12)

In this two credit elective, students will be given an introduction to the classic forms of poetry, as well as an overview of contemporary American poetry. Students will be expected to write their own poetry each week, to learn how draft, revise, and workshop their poems. The class will look at how poetry is published today, and students will learn to select prospective journals, to draft cover letters, and to send their work out for publication. Ultimately, students will also create chapbooks of their original poetry.

College Prep – 2 Credits – 2 Periods per Cycle – Full Year

History and Practice of Art and Innovation (Grades 10 - 12)

This course approaches the History of Art as a study of how people have creatively and innovatively responded to the changing conditions of their world. Whether it is Leonardo Da'Vinci responding to the market demands of Renaissance Italy by incorporating the humanistic focus of ancient Roman art, or it is Steve Jobs meeting the demands of the 21st century technology industry by drawing from the clean simplicity of German design in the 1960s, great artists have always been able to apply knowledge of the past in ways that meet the market demands of their world. The course serves as an interdisciplinary bridge for students to synthesize their learning from art, history, science and mathematics as they study how advances in each discipline affected the cultural production of their time. The class includes a studio art component and is project-based - requiring students to work in teams to predict and create artwork that responds to the conditions of different case studies from world history. This class will run in alternating years.

College Prep – 2 Credits – Full Year

CROSS-CULTURAL PERSPECTIVES (Grades 10 - 12)

Cross Cultural Perspectives focuses on broadening our points of view by looking at our ever-changing world through different lenses and from different perspectives. This course will explore a variety of relevant topics in contemporary Anthropology and Sociology. Students will focus on asking good questions, and the course will explore multiple frameworks on how to navigate the 21st century as a global society in which languages, traditions and cultures create a rich and complex community that exists all around us all. This course is open to all Medford High students. Texts included in the curriculum are complex. Active daily dialogue, dynamic classroom participation, and quarterly reflective writing are required

College Prep – 2 credits – full year

Secondary Program of Studies

LATIN AMERICAN MUSIC/DANCE (Grades 10 - 12)

Students will be introduced to the development of music/dance throughout history, with a focus on the fusion of European, African, and Indigenous cultures. Dances include the Salsa, Bachata, Samba, Merengue, Cha-Cha, and more. This class will run in alternating years.

College Prep –2 Credits – Full Year

PHILOSOPHY FOR CRITICAL THINKING AND ETHICAL LIVING (Grades 10 - 12)

This course is an introduction to the philosophical study of morality. In addition to providing familiarity with the writings of major philosophers and exploring moral philosophy's primary questions, this course is also designed to help students develop their abilities to read, explicate, analyze, and evaluate philosophical literature as well as analyze and write critically on ethical issues. This course is highly recommended for students interested in participating in events for the MHS Ethics Bowl Team in conjunction with the Tufts University Department of Philosophy. This class will run in alternating years.

College Prep –2 Credits – Full Year

PSYCHOLOGY OF SPORTS (Grades 10-12)

This class will provide an in-depth look at he influence of the principles of psychology on sports. Using case studies, guest speakers and current research reviews, students in this class will examine the brain and human behavior relating to athletic performance, motivation, attention, leadership, mental competitiveness, and group dynamics. Students will also explore the implications of stress, defeat and success. As part of the course, each student will also be expected to identify a minimum of one athletic goal and develop a treatment plan designed to facilitate achievement of this goal. This class will run in alternating years.

College Prep –2 Credits – Full Year

Secondary Program of Studies

READING AND WRITING SAT PREP (Grades 10 - 12)

This course helps students master the critical reading and writing skills testing on the SAT. This course also includes some of the grammar, usage and writing skills tested on the SAT II Writing Test.

College Prep –2 Credits – Full Year

WRITING WORKSHOP (Grades 10 - 12)

This course offers students the opportunity to improve their writing skills through extensive and intensive concentration on the craft of writing. The workshop atmosphere, which emphasizes small-group work and individual assignments, provides instruction n the process of pre-writing, editing, and revision. The student's own experiences and background provide material for most writing. Word processors will be utilized to improve both writing and revision skills (although prior computer experience is not necessary.

College Prep – 2 Credits – Full year

MATH SAT PREP (Grades 10 - 12)

This course provides students with an opportunity to review the mathematics concepts of algebra, geometry, trigonometry, and data analysis in preparation for the new Mathematics SAT. It is not considered as one of the courses in the 4-year requirement for graduation. Strongly Recommended: Graphing Calculator

College Prep – 2 Credits – 2 Periods per Cycle – Full Year

Prerequisite: Passing grade or concurrent enrollment in Algebra 2.

Secondary Program of Studies

BIOCHEMISTRY (Grades 10-12)

Biochemistry uses chemistry to describe biological systems. This course introduces the basic foundations of Chemistry and Biology and how these Scientific fields contribute to a better understa - ing of the human body functions - on both the molecular and systemic level. Additionally, this course introduces the effects of pharmaceuticals, toxins, diseases and disorders on biological systems at the chemical level. This class will run in alternating years.

College Prep - 2 Credits – Full Year

Prerequisite: A passing grade in grade 9 Science

EXPLORATIONS IN ENGINEERING (Grades 10- 12)

Students will explore engineering field through simple projects and use, for example, the constru - tion of model bridges or vehicles. This class will run in alternating years.

College Prep – 2 Credits – Full Year

Prerequisite: A passing grade in grade 9 Science

EXPLORATIONS IN FORENSIC SCIENCE (Grades 10-12)

This course explores careers, techniques and topics, focusing on the analysis of evidence collection, the decomposition process, crime scenes, skeletal remains, toxicology, and document validity. Case studies and crime scenarios help students understand the implications and issues that emerge as forensics continues to develop.

This class will run in alternating years.

College Prep – 2 Credits – Year

Prerequisite: A passing grade in Biology and Chemistry

Secondary Program of Studies

SCIENCE FAIR PROJECTS (Grades 10-12)

This course is designed to provide students with challenging opportunities to conduct experimental science research that leads to an exhibit in the annual Science Fair. Students will have assistance with selecting topics, gathering data and materials, analyzing results, and preparing a Science Fair display.

College Prep – 2 Credits – Full Year

Prerequisite: Commitment to developing a project for the annual Science Fair

SCIENCE OF SCIENCE FICTION (Grades 10-12)

In this course students will read teacher-directed and self-selected works of science fiction literature by such authors as Asimov, Verne, Vonnegut, etc. (about 1 novel per quarter) and then research, analyze, and critique their major scientific principles and theories. Students will demonstrate their understanding of scientific concepts (such as physics in outer space, the viability of time travel and interplanetary travel, evolution of genetic traits in aliens, and many more!), with a variety of methods including but not limited to papers, presentations, and projects. This class will run in alternating years.

College Prep - 2 Credits - Full Year

Secondary Program of Studies

CAREER AND TECHNICAL EDUCATION PROGRAMS

ADMISSIONS

Admission to MTHS is subject to the terms and conditions outlined in the Admission Policy. The Admission Policy is on le in the Medford Public Schools and the Massachusetts Department of Elementary and Secondary Education. Students from Everett, MA will follow the same admissions policy as set forth by Medford Public Schools. (https://www.medfordpublicschools.org/wp-content/uploads/2011/02/admission-policy-2010-2.15.11.pdf)

OUT of DISTRICT ADMISSIONS

Applicants may apply to MTHS outside of the school district provided that there is appropriate approval from that sending school's superintendent, the sending vocational school does not offer the program, and the student has completed an exploratory program at the sending vocational school as a grade 9 student.

It is the responsibility of the applicant to complete all applicable forms and submit to Medford Technical High School office prior to the April 1st deadline.

PROGRAM SELECTION

You are in the process of making career and educational decisions. These decisions should be carefully made with guidance from parents/guardians, your counselors, and teachers. Now is the time for thoughtful planning. You are being asked to make decisions that pertain to your academic and career/technical preparation and to your graduation from high school.

Parents are asked to complete and sign the Application for Admission prior to the student returning his/her application to his/her guidance counselor by March 1.

Every attempt will be made to place students in the programs of their first choice after completion of an exploratory and interest inventory. A second choice is noted by the student for purposes of space availability. The student will then be placed on a waitlist.

Secondary Program of Studies

PROGRAM CHANGES and TRANSFER STUDENTS

Students who would like to change Career and Technical Education (CTE) Programs need to follow the procedure as follows:

- Discuss transfer with the Career or Guidance Counselor in order to make the schedule change.
- Student must meet with current (outgoing) CTE teacher or faculty to discuss the program change.
- Meet with the CTE teacher or faculty in the program of interest.
- Complete a Program Selection Form with parent/guardian signature.

Transfer students from other CTE schools may enroll at MTHS into their selected programs based on the MTHS Admissions Policy.

Students transferring from non-vocational technical high schools may apply for admission at MTHS up to grade 11.

POLICY NOTIFICATION and ELIGIBILITY:

MPS admits students and makes available to them its advantages, privileges and courses of study without regard to race, color, sex religion, national origin, gender identity, sexual orientation or disability. Inquiries regarding the above may be made to the Headmaster or Vocational Principal/Director at 489 Winthrop Street, Medford, Massachusetts 02155 (393-2301) or the Director of the Office for Civil Rights, Department of Education, Washington, D.C.

Secondary Program of Studies

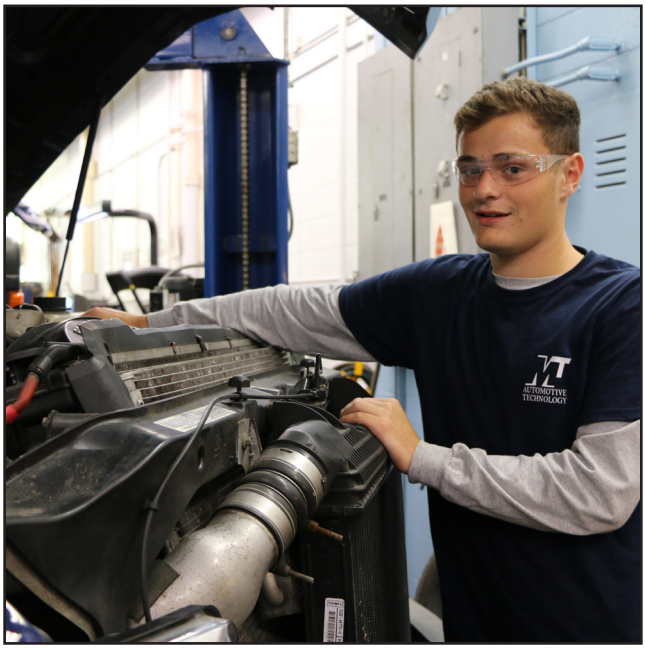
COOPERATIVE EDUCATION - All Departments

Cooperative Education is a school/work based program that expands upon the skills and education students have gained in their Career and Technical program. The Cooperative Education program is open to students in the 12th grade and during the 4th quarter for qualified students in the 1th grade. Job placement in this program is directly related to the student's area of technical training. Students must have achieved proficiency in their technical area, and completed the 10-hour OSH certification program. Academic grades, attendance and discipline record are also reviewed to determine eligibility status. Students may be removed from a Cooperative Education placement if it is deemed that they are not performing academically, have poor attendance or discipline referrals.

Cooperative Education is a school-based and a work-based program. Cooperative Education students continue to receive their academic education in the traditional classroom setting while spending their career area week employed by area business in their technical field. Students perform work best suited to their qualifications and educational needs while employers evaluate the student progress according to their predetermined standards. Students will receive no less than minimum wage from the employer, with the exception of those industries not covered by the minimum wage law.

Students must meet MTHS prerequisites including a 10-hour OSHA card before entering the program. Some programs require other credentials to be eligible for the cooperative education program. Cooperative education gives a senior or fourth quarter junior practical work experience related to their technical area. It also allows the student to re ne his/her skills prior to entering the workforce or entering post-secondary institutions. Cooperative education develops proficiency in a technical area, helping the student to assure a smoother transition into the career of their choice.

For further information, please refer to the Cooperative Education handbook located in the cooperative education office



Skills you will learn:

- Electrical / Electronic Systems
- Engine Performance
- Suspension and Steering
- Heating and Air Conditioning
- Brakes
- Customer Service

Uniform Policy:

Navy blue Dickie work pants, work boots, safety glasses, program specific t-shirt

The Automotive Technology course is a three-year program that conforms to the National Automotive Technicians Education Foundation (NATEF) standards. Adherence to the NATEF curriculum and standards exposes and trains students in the trade through a series of tasks and competencies in the areas of: brakes, electrical/electronic systems, engine performance, suspension and steering, heating and air conditioning, and additional areas. The program provides the participants with a classroom segment and hands-on work. Students work daily on customer vehicles that have been scheduled for repairs. Students interact daily with customers, write service orders, schedule jobs, order parts and complete repairs. The program is self-paced.

The Automotive Technology program is a Chapter 74 approved program taught by ASE Master Certified and NATEF approved instructors.

Upon graduation, students are employed as entry-level technicians, mechanics, brake specialists, electronic technicians, assistant service managers, consultants, and sales people in the automotive parts supply business.

Biotechnology

Skills you will learn:

- Safely and precisely create chemical solutions and growth media
- Grow bacterial, animal, and plant cells
- Produce and purify DNA, proteins, cells
- Learn about the Biotech industry and Biotech careers
- Genetically engineer DNA and cells

Uniform Policy:

Lab coat, safety classes, khakis, navy blue polo shirt

Articulation Agreements:
Tufts University
Bunker Hill Community College

Licenses, Certifications, and Affiliations
Massachusetts Biomanufacturing Certificate
First Aid and CPR, SkillsUSA, OSHA 10 Hour General Industry Safety Card

Industry Partners:
Neon Therapeutics, MA Department of Conservation and Recreation, Thermo Fisher Scientific

The Biotechnology program will introduce students to the field of Biotechnology through career exploration as well as course specific content and skills. The students will be instructed in aseptic technique and the proper use of equipment used in biology, chemistry, physics, and engineering (e.g., micropipettes, and electrophoretic, chromatographic and spectrophotometric tools). In addition, bio-manufacturing industry skills such as Standard Operating Procedures, Good Manufacturing Practices, Instrumentation, and Statistical Process Controls are reviewed. The Biotechnology program student is eligible for OSHA 10 Hour General Industry Safety Certification and Massachusetts Bio-manufacturing Certification. A certificate in Bio-manufacturing prepares students for entry level positions in many areas of biopharmaceutical production with excellent opportunities for advancement and career growth. Students who plan on continuing their education at a four-year institute should inquire with their guidance counselor regarding appropriate course selection.

Business Technology & Marketing

Skills you will learn:

- Leadership and accountability
- Initiative and self-direction
- Communication and collaboration
- Technology in the workplace
- Creativity and innovation
- Social and cross-cultural skills
- Entrepreneurship
- Business communication
- Advertising and design
- Retail management

Uniform Policy:

Navy blue polo shirt, khaki pants

Articulation Agreements:
Bunker Hill Community College

Licenses, Certifications, and Affiliations
Microsoft Office Specialist Certification (MOS), Certifi Meeting Professional (CMP), Massachusetts Retail Association, DECA, WISE Financial Literacy Certifications, University of New Hampshire High Schoo Entrepreneurship Competition, SkillsUSA, OSHA 10 Hour General Industry Safety Card

Industry Partners:
Medford Chamber of Commerce, TJ Maxx, McGoldrick Marketing, ReMax Realty, BodyCote, LEGO Education

The Business Technology & Marketing Program provides the skills, background, and certification necessary to prepare students to become well-rounded employees, employers, or entrepreneurs. Students will be given an introduction to marketing, entrepreneurship, and Microsoft Office computer applications such as Microsoft Excel, Word, Access, and PowerPoint. This program integrates computer applications and business communication skills with a strong foundation in business courses. Legal issues are also introduced and students develop knowledge in personal finance and practice time management, organizational skills, and goal setting.

Students will develop business relations skills as well as an understanding of business attitudes essential to participate as productive workers and consumers in the multinational workplace. Through hands-on experience, students will develop an ability to organize and manage the operations of an active business with the Mustang Mall, a school-based enterprise. The store offers face-to-face consumer experiences and builds customer service and interpersonal skills. Students are also encouraged to further develop their business communication skills including writing, editing, and overall computer operations. Integrated within this rigorous curriculum is a strong focus on leadership development and public speaking skills. All learners are challenged to meet high standards and expectations while receiving the necessary supports for success.

Possible career pathways for graduates from the Business Technology & Marketing Program include Administrative Assistant, Office Manager, Salesperson, Payroll Clerk, Manager, Executive Assistant, Marketing, Advertising, Public Relations, Banking, Accounting, and Retail Operations.

The Business Technology & Marketing Program prepares students for continuing their education in this field at the 2-year and/or 4-year college degree level and assists students with the college selection process.

Carpentry

Skills you will learn:

- Safe use of hand and power tools
- Reading blueprints/plans
- Foundation layout
- Building framing (wood/steel)
- Finish and trim carpentry
- Installing windows and doors
- Roofing and drywal
- Cabinet installation

Uniform Policy:

Un-torn jeans, program specific shirt, work boots, safety glasses

Articulation Agreements:
New England Carpenter's Training Fund Apprenticeship Program
Eastern Massachusetts Carpenter's Apprenticeship & Training Committee
New England Institute of Technology
Wentworth Institute of Technology

Licenses, Certifications, and Affiliations
SkillsUSA, OSHA 10 Hour Construction Industry Safety Card

Industry Partners:
Phoenix Construction, Mystic Builders, Gentry Remodeling, Silva Lightning Builders, New England Design Contractors, Lake HVAC, Dan's Service, Consolidated Sterilizer Systems, Davinci Plumbing

Students in the Carpentry program receive instruction in various methods, tools and materials used in home construction. The primary focus is on house framing, siding, roofing, and interior finish work, with additional consideration for utilizing green building products, energy-efficient installation techniques, and high-efficiency mechanical systems including solar power. Students are taught fundamentals of design, blueprint reading, layout, and accurate dimensioning. They work with a variety of building and finishing materials, and become familiar with modern methods and installation techniques for those materials. Engineered wood products and pre-fabricated components are incorporated as time and material-saving alternatives to conventional site-built lumber framing. Students employ the safe use of a variety of hand and power tools throughout their training.

Extended activities range from shed construction to larger building and remodeling projects both within the school and off-campus. Students also participate in field trips and other learning experiences which expose them to career possibilities and opportunities within the larger construction context. Retail sales, product development and factory/millwork are just a few options students may pursue. Our program is an excellent stepping stone to an apprenticeship program in the New England Carpenter's Union and/or a degree in construction management, architecture, and civil or structural engineering. The variety of jobs available and income-earning potential is extensive.

Skills you will learn:

- Hand, power and pneumatic tools
- Surveying
- Installation of utilities
- Concrete work
- Demolition
- Scaffold building
- Landscaping

Uniform Policy:

Un-torn jeans, program specific shirt, work boots, safety glasses

The construction industry is one of the most diverse and rewarding industries in the world. From a single-family home to a railway tunnel under the English Channel, the potential for personal and financial growth is only limited by your willingness to work and learn. A career in construction can provide a standard of living for you and your family, as well as a sense of pride and accomplishment in the projects you help build. It is beyond the scope of this document to list all of the major types of construction. They have been identified and grouped into the following three categories:
1. Building - construction and reconstruction of residential and commercial buildings.
2. Highway, Utilities and Land Development - construction and reconstruction of the following: major and minor highways, subdivisions, bridges, dams, tunnels and airfields, underground utilities (telephone and electric), piping systems (petroleum, water, sewer, natural gas, and collection systems)
3. Environmental - remediation and activities associated with the following: asbestos abatement, decontamination and demolition of nuclear facilities, hazard waste removal, lead abatement, permit-required confined spaces, and erosion control.

Construction remains a major growth industry in North America and a source of jobs for new entrants into the workforce. The United States Bureau of Labor Statistics (BLS) predicts construction jobs will increase from 7 million to 7.8 million in the years 2008-2018.

Cosmetology

Skills you will learn:

- Hair Extensions
- Chemical Hair Straightening
- Haircutting
- Permanent Waving
- Creative Coloring
- High Styling
- Manicuring
- Make-up Application

Uniform Policy:

Black program specific scrub set, leather work shoe

Articulation Agreements:
Catherine Hynes - Aesthetics Hairlines Distributor education classes

Licenses, Certifications, and Affiliations
Mass. Board of Registration of Cosmetology
Master Hair Colorist, Hair Extensions, Chemical Hair Straightening Systems, SkillsUSA, OSHA 10 Hour General Industry Safety Card

Industry Partners:
Bella Capelli, Salon 333, Dellaria Salon, Hair Cuttery, Hair's Karen, Naz Kupelian Salon, Mario Russo, Philip Ciampi, Kenzo, Tradewinds Hair Salon, Emily's Hair, Floyd's, Supercuts, Avantes, Paul Kenneth Salon, Blow Out Bar, NVY, Silvestro Barber Shop

A cosmetologist, commonly referred to as a hairdresser, provides a variety of beauty services, which are related to the care of hair, skin, and nail. The course includes all technical areas such as shampooing, haircutting, permanent waving, creative coloring, high styling, manicuring and many more beauty treatments including make-up application.

The program consists of three major elements of the learning process. The core, adaptive, and creative levels of curriculum and are the basis of the cosmetology program. The teachers hold the students to a high standard of learning expectations.

All cosmetology students receive 1,000 earned hours of instruction, which is required to qualify for the state of Massachusetts licensing examination and employment as a cosmetologist. A portion of the course includes theory and entrepreneurship skills. The students will work on clients and acquire interpersonal skills, communication and client consultations. Our students are also taught computerized salon software, which will assist them in becoming familiar with the responsibilities of salon receptionist duties.

Upon completion of the program and successfully passing the state board exam, students have many opportunities and career choices.

Skills you will learn:

- Food handling, preparation and presentation
- Problem solving
- Function and event management
- Entrepreneurial skills
- Customer service
- Meeting manager
- Event planning
- Hotel operations
- Catering and sales

Uniform Policy:

Chef pants, Chef coat, black pants, hat, polo shirt

Culinary Arts students learn the principles and techniques of food preparation, handling, food service and restaurant management. The study of nutrition, sanitary codes, and inventory control are included in the competency-based curriculum. Bistro 489, a student-operated public restaurant opening in fall 2017, provides the students with the opportunity to gain firsthand experience in the areas of safety, food handling, food preparation, institutional cooking, short order cooking, computer skills, and customer service. In addition, culinary arts skills are reinforced through related studies in the classroom.

Upon graduation, job opportunities include: line cook, prep cook, short cook, chef, butcher, baker, host/hostess, pastry chef, caterer, dining room manager, and restaurant manager.

Graduates may seek employment in resorts, hotels, full-service restaurants, conference centers, function facilities.

Early Childhood & Care

Skills you will learn:

- Safety practices according to the EEC and OSHA regulations
- Creating and implementing age appropriate curriculum
- How to conduct small and large groups
- Classroom management
- How to communicate with young children effectively

Uniform Policy:

Program specific polo shirt, business casual pants, safety shoes

Articulation Agreements:
Roxbury Community College
Bunker Hill Community College

Licenses, Certifications, and Affiliations
Early Education and Care Teaching Certificate
First Aid and CPR,
SkillsUSA, OSHA 10 Hour General Industry Safety Card

Industry Partners:
Kids' Corner, Creative Corner, Graceworks after school care, Westside Preschool, St. Raphael School, Six Acres Nursery School, Bright Horizons Daycare, Kid Connection

Students enrolled in the Early Childhood & Care program participate in the "Make Way for Kids" preschool and other daycare programs. The children serviced are 3 to 5 years of age. Through hands-on experience in the preschool, students learn, develop, and perform skills as an assistant teacher under the guidance of the teacher. Students have the opportunity to create and implement age-appropriate, theme-based curriculum to the children. All students rotate through the age levels in order to experience a variety of ages and stages as well as different teaching styles. The competency-based curriculum includes child growth and development studies and practical experiences working with young children. Upon graduation, the students will receive a personal certificate of proficiency with documentation of child contact hours. The certificate can be used to apply for a preschool teaching certificate from the Early Education and Care (EEC). This application is the responsibility of the student and is not guaranteed.

A graduate from the program may obtain an entry-level position in a childcare center, a nanny position, or a preschool teacher in an Early Childhood program approved by the Early Education and Care office of Massachusetts. Other opportunities include childcare center owner or director, teacher, early intervention specialist, family services worker, or continue to post-secondary education.

Learning That Works

Skills you will learn:

- Electrical hazards and safety
- Low voltage signal wiring
- Residential non-metallic cable
- Armored cable
- Proper and safe use of tools
- Electrical metallic tubing
- Rigid metal conduit
- Troubleshooting
- Commercial lighting
- Surface metal raceway
- Fire alarm systems

Uniform Policy:

Un-torn jeans, work boots, safety glasses, program specific shirt and/or sweatshirt

Through a competency-based curriculum the Electrical program prepares students with the basic skills needed for an advanced-level position in the electrical field. The students gain a thorough knowledge of materials, terminology, and safety skills that are necessary to become a licensed electrician, a licensed systems technician, or a telecommunications technician. Students will become proficient in a variety of electrical projects in compliance with the National Electric Code, Massachusetts Electrical Code, and NFPA (National Fire Protection Association) Safety Code, and all other codes relegated to the electrical industry.

The related classroom curriculum stresses mathematics, science, and understanding of the national electrical code. Emphasis is placed on the mastery of fundamentals, concepts, and principles, as well as the ability to solve practical problems.

Upon graduation students will receive a high school diploma and a vocational certificate. In addition, students may be awarded up to 1800 working hours and 180 classroom hours to apply towards the requirements of the State of Massachusetts Electrical Board for the Electrical License Examination.

Graduation provides the following career opportunities: electrical apprentice, journeyman electrician, residential electrician, commercial electrician, industrial electrician, maintenance electrician, Master electrician, electrical contractor, telecommunications technician, systems technician (burglar and fire) or electrical material sales.

Environmental Science & Technology

Skills you will learn:

- Geographic Information Systems and GIS technology
- Orienteering with maps, compass, and GPS
- Water quality testing
- Drinking water technology
- Sustainable green technologies
- Soil testing
- Aquaculture
- Land-use planning
- Identifying the flora and fauna of New England
- OSHA HAZMAT training and certification

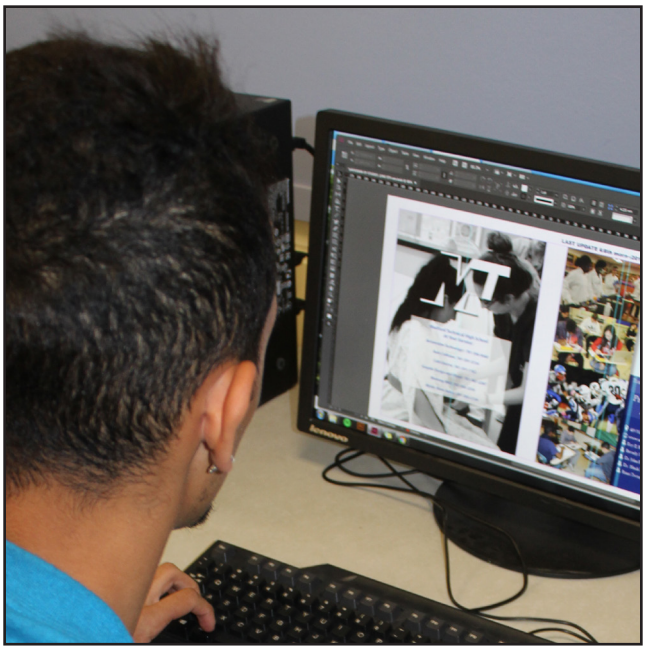
Uniform Policy:
Lab coat, safety glasses, khakis, navy blue polo shirt, program specific shirt and/o sweatshirt

Articulation Agreements:
Articulation agreement being developed

Licenses, Certifications, and Affiliations
First Aid and CPR, SkillsUSA,
OSHA 10 Hour Construction Safety Card
OSHA HAZWOPER certificatio

Industry Partners:
Massachusetts Department of Conservation and Recreation (DCR), Mystic River Watershed Association, Massachusetts Water Resources Authority (MWRA), Friends of the Middlesex Fells Reservation, Medford Department of Energy and Environment, Tufts University Mountain Club, US Forest Service

Environmental Science and Technology will provide students a unique opportunity to participate in both laboratory and field studies. Students will interact with environmental scientists and engineers, community and state officials, and other environmental organizations to investigate real-world environmental issues. Graduates of the Environmental program are certified in First Aid and CPR, 10 Hour OSHA General Industry Safety Card, and OSHA 40 Hour Hazardous Waste Operations. Students are trained in wastewater and drinking water technologies, and are prepared to take the Massachusetts Class II Municipal Wastewater Treatment Plant Operator and Massachusetts Grade I Drinking Water Treatment Exams administered by the Commonwealth of Massachusetts. Eligible seniors may also complete internships with local environmental consulting com-panies, contractors, or laboratories. Students who plan on continuing their education at a four-year institute should inquire with their guidance counselor regarding appropriate course selection.



Skills you will learn:

- Color Theory
- Composition, Layout and Design
- Illustration and Typography
- Client Communication
- Creative Process and Problem Solving
- Advertising and Marketing
- T-Shirt Design

Uniform Policy:

Business casual, program specific shirt, leather work shoe

Graphic Design & Visual Communications prepares students for careers working in digital technology, printing, publishing, and new media ventures. Classroom experiences and laboratory time provide students with the knowledge and experience to gain an entry-level position working on the technical side of a printing press or media development center. Digital design and production involves primarily the Adobe Creative Suite applications. Classes are focused on using the software to design graphics and layouts, create graphics and images, and manipulate and enhance images. Projects are prepared from concept to production. Students take prepress and production coursework, in which they learn to prepare projects for an offset lithographic press using digital prepress techniques, develop Internet sites, devise electronic page layout and work with digital media sources. Basic business management and entrepreneurial skills for the graphic industry are also taught.

Graduates will have learned the technical skills behind publishing newspapers, magazines, newsletters and other forms of mass graphic communications. Though job skills and responsibilities will depend on the place of employment, graduates of this graphic communications program may find a job as a digital prepress operator, digital media developer, press operator, finisher, page layout technician, output technician, typesetter, proofreader, copy center technician, and print/media salesperson. Graduates work in advertising agencies, newspapers, magazines, printing companies, in-house corporations, the music industry, and multimedia production.

Health Assisting

Skills you will learn:

- Physical assessment
- Patient care in a variety of settings
- Proper use of medical equipment
- Medical office employability skills, inclu - ing professionalism, time management, communication, active listening, team work, and presentation skills

Uniform Policy:

Navy blue scrubs, closed toe safety shoes

Articulation Agreement:
Statewide Articulation Agreement with Community College

Licenses and Certifications
Commonwealth of Massachusetts Certified Nursing Assistant (CNA) Licensure, Certifications in First Aid for infants, children, and adults, Blood Borne Pathogens, CPR, Healthcare Provider CPR, AED & ChokeSave, Home Health Aide, Dementia Care (8 hour), Emergency Medical Technician American Heart Association, SkillsUSA, OSHA 10 Hour General Industry Safety Card

Industry Partners:
Community Family, Inc., Adult Day Health Center, Army ROTC, Little Sisters of the Poor, Winchester Nursing and Rehabilitation, Lawrence Memorial Hospital, Courtyard Nursing Care Center, Greater Medford VNA, ABC Home Care Agency, Massachusetts Eye and Ear Infirmar , Bear Hill Nursing Facility, Winchester Hospital, Mass General Hospital, Walnut Street Center, Armstrong Ambulance, Axiom

The Health Assisting Program is an excellent choice for students interested in entering the high-demand field of health care and human services. Students are exposed to a wide variety of health careers through classroom lessons, guest speakers, job shadows, and externships. Theory and computer technology lessons are provided using the most up-to-date technology in the classroom. Authentic practical training is provided in our realistic health suite using professional equipment, medical mannequins, and "patient-actors". Training continues in long term care and rehabilitation centers, assisted living facilities, senior centers, therapeutic animal farms, and acute care hospitals.

Course instruction includes: Social Skills for Professional Success, Growth and Development, Wellness and Disease Pathology, Dementia Care, Medical Terminology, Introductory and Advanced Patient Care, Introduction to Electrocardiography, Introduction to Phlebotomy, Microsoft Power Point and Microsoft Word, and Introduction to Medical Office Assistant.

Upon graduation, students are prepared for post-secondary education in a variety of health careers and employment as nursing assistants in acute and long term care facilities.

Media Technology

Skills you will learn:

- Filmmaking & Cinematography
- Audio Engineering
- Lighting
- Nonlinear Editing
- Scriptwriting & Storyboarding
- Reading a Teleprompter
- Interviewing and Acting
- Directing & Producing
- Problem Solving, Critical Thinking, Communication

Uniform Policy:
Program specific polo or fleece jacket, khakis or un-torn jeans, closed toe shoes

Articulation Agreements:
Bunker Hill Community College

Licenses, Certifications, and Affiliations
Adobe Certified Associate in Premiere and After Effects, Society of Broadcast Engineers, SkillsUSA, OSHA 10 Hour General Industry Safety Card

Industry Partners:
Brookline Interactive Group, Strategic Social Consulting, NESN, Comcast, Greater Media Boston, McGoldrick Marketing, WROR, Lasell College, WGBH, Teleprompters of Boston, Filmmakers Collaborative

The media technology program is designed for students interested in pursuing employment and post-secondary education in the fields of television and radio broadcasting and media technology. The curriculum integrates academic and technical content for a variety of media outlets. Hands-on activities include the production of actual television cablecast programs at Medford's new state-of-the-art public access television station. Students learn all aspects of television and radio broadcasting, including writing scripts and treatments, cinematography techniques, nonlinear editing, lighting, audio engineering, field and live studio productions, and remote news gathering.

Students completing this course of study can pursue additional education in two and four-year college communications-related programs.

This is a new program for the SY 2016-2017. It is anticipated that work study opportunities will become available with local radio and TV stations, media production houses, and other related media technology businesses.

Skills you will learn:

- Drafting and layout
- Blueprint reading
- Safety procedures
- Use of hand and power tools
- Use of manual equipment
- Related math
- On-the-job experience

Uniform Policy:

Un-torn jeans, work boots, safety glasses, program specific shir

Students learn to create products for the metal manufacturing industry using sheet metal and welding techniques. From precision sheet metal work to welding manufacturing and construction, students gain a solid background in a high demand industry.

Students will learn basic and advanced layout techniques, such as parallel line development, and radial line development through hands-on projects and activities. A wide range of skills surrounding welding and sheet metal are presented which may lead to AWS certification. Joint design, material and alloy selection and machine maintenance are also included in the curriculum.

Programming & Web Development

Skills you will learn:

- In-depth web development
- HTML, CSS, JavaScript
- Software development
- Object-oriented programming
- App development
- Game development
- Databases
- Networks
- Computer science principles
- 3D design using scripting

Uniform Policy:

TBA – New Program

Articulation Agreements:
Bunker Hill Community College

Licenses, Certifications, and Affiliations:
SkillsUSA
OSHA 10 Hour General Industry Safety Card
Avdanced Placement Computer Science Principles
Advanced Placement Computer Science A

Industry Partners:
Amazon Corporation, TERC, TEALS Organization, Microsoft Corp.

The Programming and Web Development program combines computer systems administration, computer programming, and website development in order to prepare students for careers in the computer science industry. The program is designed to enable students to succeed in a highly technical, global environment. Students create and understand the technical details of apps for mobile devices, computer software, websites, databases, and networks. Creating programs and applications and building interactive web pages are just examples of the myriad of projects that students complete in this program.

Students become proficient with popular software packages and development environments to develop computer programs and create websites. Computer science and the software design process are taught using languages such as Java and Python. Website development, including design, creation and maintenance, is taught using JavaScript, HTML and CSS. Additional content areas include app development, game development, networks and relational databases.

Possible career pathways for Programming and Web Development students include computer programming, software engineering, website design, web development, systems administration, game development, computer support, network administration, database management, computer maintenance and computer sales.

The Programming and Web Development Program prepares students for continuing their education in this field at 2-year and/or 4-year college degree level and assists students with the college selection process.

Skills you will learn:

- Autodesk Inventor software
- CNC manufacturing
- Fabrication techniques
- Engineering design process
- CAD / CAM
- Problem solving
- Motor feedback control
- Embedded programming (Python, C++)
- Circuit board design
- Electronics and electronics design
- Pneumatics

Uniform Policy:

Program specific polo shirt, black pant

Robotics and Engineering is a Chapter 74 Certified program for students who are interested in designing and building things. Students in this program will learn to design and build mechanical and electrical devices ranging from an electronic circuit used to control a matrix of LEDs (light emitting diodes), to a fully functional custom-built robot. In addition to physically building devices, students will learn to write code, the instructions that run everything from Facebook to your refrigerator.

In this program students primarily learn about the fields of electrical, mechanical, computer, and robotic engineering. Students are expected to develop a good working knowledge of each of these fields. Students will learn how to design complex mechanical parts using our industry-standard Computer-Aided Design (CAD) software. They will be able to print parts using our high-end 3D printer and directly manufacture parts using precision metal working tools. Students will learn to design electronic circuits on breadboards, create electronic schematics and print their own custom printed circuit board (PCBs). Students will also learn to write C, a computer language used to program the wort of micro-computers found in most electronic devices from your car's fuel injection system to a cell phone. In addition, students will learn higher level programming languages such as Javascript and Python.

Freshman and sophomore students will focus on learning the fundamentals of engineering and robotics through hands-on projects. Junior and senior students will be expected to design and develop independent projects with an emphasis on real-world projects that solve a need of the community. For example, one of our students has already been featured in the Boston Globe for creating a tele-presence robot that enabled a teacher to participate in the classroom while out on medical leave.