



**Marlborough High School
Program of Studies
2021-2022**

Principal's Message

The Program of Studies is published annually as a catalog of courses offered at Marlborough High School. It contains detailed information to support in choosing courses that interest, challenge, and inspire you. Please take the time to read through the Program of Studies and consult with your teachers, counselor, and parents or guardians to make informed decisions as you progress toward meeting the graduation requirements of Marlborough High School.

Marlborough High School offers a wide variety of courses to stimulate your curiosity, challenge your thinking, and promote your development as a 21st-century learner. The course offerings are designed to provide you with a comprehensive academic experience while supporting your growth towards college and career. Choose courses that allow you to balance academic expectations with additional opportunities through our many clubs, activities, and athletic teams.

In the spring, students in grades 8, 9, 10, and 11 will select courses for the upcoming school year. Course offerings and staffing will be developed using student requests generated through the selection process. This scheduling process only occurs once a year so it is critical that you choose your classes thoughtfully. Changes to student schedules cannot be made, except in rare situations, after classes are selected and scheduled. Please note, our scheduling process also occurs concurrently with the school district's budgeting process. **Some of the courses in this program may be modified or may not be offered as a result of student requests and/or budgetary changes.**

On behalf of our entire faculty, we look forward to working with you this school year. MHS has many wonderful opportunities for you. In addition to offering a complete MassCore trajectory, we have many other offerings including an extensive Advanced Placement (AP) program, tuition-free college classes offered through our early college program, credentialing pathways like our EMT program, interdisciplinary project-based learning through our freshman and sophomore teaming model, and Virtual High School courses that expand our offerings even further. Take advantage of these opportunities to create a schedule that challenges you academically, broadens your horizons, and makes Marlborough High School the very best experience for you.

Sincerely,
Dr. Daniel J. Riley
MHS Principal

MISSION STATEMENT

Marlborough High School is a respectful and comprehensive 21st-century learning environment.

We communicate effectively, think critically, collaborate productively, and solve problems efficiently. We provide equal access to educational rigor and commit to success for all students.

A Marlborough High graduate is **kind**, **respectful** and prepared for the 21st Century. They **communicate effectively**, think critically, collaborate productively, and **solve problems efficiently**.



Respect: Respect is an appreciation or admiration of others that is shown through patience, understanding and courtesy.



Kindness: Kindness is the act of being genuine in our interactions with others; mindful of their feelings, and doing right by them.



Teamwork: Teamwork is a commitment to common goals demonstrated by working effectively together with others.



Responsibility: Responsibility is taking ownership over one's own actions.



Effective Problem Solving: Effective Problem Solving is the process of working through the details of a problem in order to reach a solution that considers not only the outcome but the interests of others, resulting in mutual agreement about a solution.

Course Selection Information

The course selection process begins with the distribution of this Program of Studies and the Course Selection Sheet during class meetings. Students will meet with their current teachers to discuss next year's course recommendations. Course recommendations are based on a student's overall achievement, performance on standardized assessments (where applicable), work habits and readiness. Students are later provided with a verification sheet listing all recommended courses. This form should be signed by the parent or guardian and student, and then returned to the student's guidance counselor.

Guidance counselors meet with each student to discuss teacher recommendations and review future plans. Any conflict between a teacher's recommendation and a student's request will be resolved with a meeting involving input from the student, parent, teacher and department supervisor.

Schedules will be provided to students in early summer. Any adjustments to student schedules must take place over the summer prior to the first day of school via communication with the guidance counselor, supervisor and/or assistant principal. Guidance counselors will be available prior to the start of school by appointment through the guidance office. Once school begins in late August, it is expected that each student will continue with the schedule that has been developed during the course selection process.

A high quality education depends on a full 90-day (semester) or 180-day (full year) course experience. MHS does its best to provide every student with every course they wish to take. However, scheduling conflicts sometimes occur and alternate course choices might need to be made. At times, course offerings may be closed due to budget decisions, staffing changes and/or availability. We encourage every student to choose a schedule that challenges them academically and supports their individual passions.

MASSACHUSETTS INTERSCHOLASTIC ATHLETIC ASSOCIATION (MIAA) COURSE REQUIREMENTS

The MIAA requires that all student-athletes must carry and pass the equivalent of four full-year core subject courses every year. A student must carry and pass four full-year courses (two semester courses do not equal a full-year course).

COURSE LEVELS

Course levels give all of our students the opportunity to experience success in an environment that is appropriately challenging, rigorous, and enriching. All of our courses are designed to prepare students for success after high school. Although past grades are not the only indicator to be considered when placement decisions are made, they can serve as a reasonable indicator of success. The following course-level descriptions are provided as a general guideline for students and parents.

ADVANCED PLACEMENT (AP)

At Marlborough High School we encourage all students to challenge themselves. This means that students must be able to provide evidence that they are capable of handling AP course work. The best indicators of this work are final course grades, assessment grades, and standardized test scores such as MCAS, PSAT and SAT scores. Students must also demonstrate they have the work ethic to be successful with a demanding college-level curriculum. AP courses are recommended for highly motivated students who have demonstrated exceptional academic achievement. Frameworks for each AP course are designed by the College Board. As such, the courses are designed to move at a faster pace, cover more breadth and depth, and require significant independent work, both inside and outside the classroom. Students taking these classes are required to take the course-specific AP examination towards the end of the school year. To enroll in an AP course, students must:

- Attend a meeting of all potential AP students
- Meet with the teacher of the AP course(s)
- Have parents sign the course verification sheet with AP course(s) listed
- Meet with his/her guidance counselor and discuss enrollment in the AP course(s)
- Attend a meeting where course expectations are reviewed

The Advanced Placement Program will require students to commit to taking AP Exams by early November, at which time payment will be collected at Marlborough High School. Students may qualify to receive assistance for this payment.

Marlborough High School will formally recognize students that take AP courses and achieve qualifying scores with the following national AP Scholar awards:

AP Scholar

Granted to students who receive scores of 3 or higher on three or more AP Exams.

AP Scholar with Honor

Granted to students who receive an average score of at least 3.25 on all AP Exams taken, and scores of 3 or higher on four or more of these exams.

AP Scholar with Distinction

Granted to students who receive an average score of at least 3.5 on all AP Exams taken, and scores of 3 or higher on five or more of these exams.

HONORS (H)

Honors courses are designed for students planning to attend a four-year college program or to pursue post-secondary education opportunities after high school. In the ninth and tenth grades, the curriculum in these courses will also provide the comprehensive preparation every student needs to succeed on the state's MCAS exams. Students will work with advanced topics and progress at a rigorous pace in these courses. Assistance is provided

through intervention courses for freshmen and sophomore students struggling to meet with success in our all-honors program in ELA and mathematics.

COLLEGE PREP (CP)

College Preparatory courses are designed for students planning to attend a college program after high school. College Prep-level courses develop subject-area skills that are the prerequisite for any future college work. Students will work with challenging topics and be expected to complete daily preparation outside the classroom.

UNLEVELED ACADEMIC CLASSES (No Level Notation)

Unleveled academic classes are designed for students looking to pursue academic interests, graduation requirements, and ensure a full schedule. These offerings vary by department. Students will complete work specified in the course description and, depending on the type of course, may be expected to complete daily preparation outside the classroom. These courses are not weighted for class rank/GPA purposes.

WEIGHTED GRADE POINT AVERAGE (GPA)

GPA is calculated as a weighted average using a four-point system. A student's performance in a class is weighted based on the course level, according to the following chart:

Letter	Numeric Range	AP	Honors	CP
A+	97-100	5.3	4.8	4.3
A	93-96	5.0	4.5	4.0
A-	90-92	4.7	4.2	3.7
B+	87-89	4.3	3.8	3.3
B	83-86	4.0	3.5	3.0
B-	80-82	3.7	3.2	2.7
C+	77-79	3.3	2.8	2.3
C	73-76	3.0	2.5	2.0
C-	70-72	2.7	2.2	1.7
D+	67-69	2.3	1.8	1.3
D	63-66	2.0	1.5	1.0
D-	60-62	1.7	1.2	0.7
F	50-59	0.0	0.0	0.0

Any student who scores less than 50 for the final grade will not be eligible for summer school. NC (No Credit) - Final Grade below 50 for *Final Grade* only.

LEVEL CHANGES/COURSE CHANGES

Course changes after the first two weeks of the new school year or a new semester course will require approval from an assistant principal. The add/drop form is available through the Guidance Department and it is the responsibility of the student to meet with the teacher, guidance counselor and assistant principal to complete the form. In order to facilitate a level change, a student must have sought out the teacher for extra help as needed to address academic issues. Before a course is dropped and/or a level changed, the student, teacher and parent should have already communicated with an attempt to rectify academic issues. Any student who withdraws from a course after the first quarter will receive a grade of Withdrawn Passing (WP) or Withdrawn Failing (WF).

MINIMUM GRADUATION REQUIREMENTS

In addition to meeting the MHS course requirements listed below, all students in the Commonwealth of Massachusetts are required to meet state-determined performance criteria on the Massachusetts Comprehensive Assessment System (MCAS). To receive a high school diploma, students must (a) earn a score of "Meeting Expectations" or "Exceeding Expectations" on the grade 10 English Language Arts (ELA) and mathematics exams or (b) earn a score of "Partially Meeting Expectations" and fulfill the requirements of an Educational Proficiency Plan (EPP). In addition, all students must earn a score of "Partially Meeting Expectations" or higher on one of the science MCAS exams (either Introductory Physics or Biology).

English	4 years
Mathematics	4 years
Science and/or Technology/Engineering	3 years
History/Social Science	3 years
World and Classical Languages	2 years (sequence in one selected language)
Wellness	4 half years (1 semester per year)
Music and Visual Arts	*1 year (2 semesters or full year)

*Can be fulfilled through Music and/or Visual Arts courses, including Video Production and Textiles.

GRADUATION REQUIREMENTS

In order to graduate from Marlborough High School, a student must accumulate a minimum of 96 credits (MPS Policy 7.950) in grades 9-12.

Full year course = 4 credits

Half year (semester) course = 2 credits

TYPICAL FOUR-YEAR SCHEDULE FOR A MARLBOROUGH HIGH STUDENT

9th Grade - Thematic Teams

Students have a choice of selecting courses based on a theme of STEM, Fine Arts, or Business.

Please note: All 9th Grade students have access to our full year performing groups (Concert Band, Wind Ensemble, Jazz Ensemble, 9th Grade String Ensemble, Mixed Chorus, and A Cappella).

Students who are participating in Music Ensembles, English Language Development Classes, or support classes (e.g., special education, reading, mathematics, etc.), will have these full year courses substituted for up to two (2) half year courses.

STEM	FINE ARTS	BUSINESS
Honors English 9	Honors English 9	Honors English 9
Honors Algebra I	Honors Algebra I	Honors Algebra I
World History (H/CP)	World History (H/CP)	World History (H/CP)
Honors Introductory Physics	Honors Introductory Physics	Honors Introductory Physics
Second Language (H/CP)	Second Language (H/CP)	Second Language (H/CP)
Wellness (Half year)	Wellness (Half year)	Wellness (Half year)
STEM elective (Half year)	Fine Arts elective (Half year)	Business elective (Half year)
Additional electives	Additional electives	Additional electives

10th Grade - Thematic Teams

Students have a choice of selecting courses based on a theme of STEM, Fine Arts, or Business.

Please note: All 10th Grade students have access to our full year performing groups (Concert Band, Wind Ensemble, Jazz Ensemble, Symphony Orchestra, Mixed Chorus, and A Cappella).

Students who are participating in Music Ensembles, English Language Development Classes, or support classes (e.g., special education, reading, mathematics, etc.), will have these full year courses substituted for up to two (2) half year courses.

STEM	FINE ARTS	BUSINESS
Honors English 10	Honors English 10	Honors English 10
Honors Geometry	Honors Geometry	Honors Geometry
US History I (AP/H/CP)	US History I (AP/H/CP)	US History I (AP/H/CP)
Biology (H/CP)	Biology (H/CP)	Biology (H/CP)
Second Language (H/CP)	Second Language (H/CP)	Second Language (H/CP)
Wellness (Half year)	Wellness (Half year)	Wellness (Half year)
STEM elective (Half year)	Fine Arts elective (Half year)	Business elective (Half year)
Additional electives	Additional electives	Additional electives

Please note: Students looking to pursue a life science pathway (AP work in Biology and/or Chemistry) should include H/CP Chemistry as part of their schedule during 10th grade. This will ensure you meet all prerequisite requirements for AP Biology and/or Chemistry.

11th Grade

The following table captures many offerings but not all scenarios are listed. In addition to the courses listed below, students will have availability for additional electives listed in the Program of Studies.

DEPARTMENT	ADVANCED PLACEMENT (AP)	HONORS (H)	COLLEGE PREP (CP)
Mathematics	Calculus AB	Algebra II (includes Pre-calculus coursework)	Algebra II (does not include Pre-calculus coursework)
English	Composition	Comp I and II (Early college courses)	Com & Comp
History/SS	US His I (Part 2) <u>or</u> Economics <u>or</u> Psych (Full year) <u>or</u> American Gov & Pol	US History II <u>or</u> Principles of Econ <u>or</u> Soc (Half year) <u>or</u> Psych (Half Year)	US History II <u>or</u> Soc (Half year) <u>or</u> Psych (Half Year)
Science	Biology <u>or</u> Environ Science <u>or</u> Chemistry <u>or</u> Physics	Biology <u>or</u> Environ Science <u>or</u> Anatomy & Phys <u>or</u> Biotech <u>or</u> Chemistry <u>or</u> Earth & Space <u>or</u>	Biology <u>or</u> Environ Science <u>or</u> Anatomy & Phys <u>or</u> Biotech <u>or</u> Chemistry <u>or</u> Earth & Space <u>or</u>

		Physics <u>or</u> Engineering (Variety)	Physics <u>or</u> Engineering (Variety)
Second Language	Spanish, French, Latin or English	Spanish, French, Latin or English	Spanish, French, Latin or English
Wellness (Half year)	Not leveled	Not leveled	Not leveled

12th Grade

The following table captures many offerings but not all scenarios are listed. In addition to the courses listed below, students will have availability for additional electives listed in the Program of Studies.

DEPARTMENT	ADVANCED PLACEMENT (AP)	HONORS (H)	COLLEGE PREP (CP)
Mathematics	Calculus AB, Calculus BC <u>or</u> Statistics	Intro to Calculus	Pre-Calculus <u>or</u> Topics
English	Composition <u>or</u> Literature	Comp I and II (Early college courses) <u>or</u> Media Lit <u>or</u> World Lit	Media Lit <u>or</u> World Lit
History/SS	US His I (Part 2) <u>or</u> Economics <u>or</u> Psych (Full year) <u>or</u> American Gov & Pol	Psych I/Soc I (Early college courses) <u>or</u> US History II <u>or</u> Principles of Econ <u>or</u> Soc (Half year) <u>or</u> Psych (Half Year)	US History II <u>or</u> Soc (Half year) <u>or</u> Psych (Half Year)
Science	Biology <u>or</u> Environ Science <u>or</u> Chemistry <u>or</u> Physics	Biology <u>or</u> Environ Science <u>or</u> Anatomy & Phys <u>or</u> Biotech <u>or</u> Chemistry <u>or</u> Earth & Space <u>or</u> Physics <u>or</u> Engineering (Variety)	Biology <u>or</u> Environ Science <u>or</u> Anatomy & Phys <u>or</u> Biotech <u>or</u> Chemistry <u>or</u> Earth & Space <u>or</u> Physics <u>or</u> Engineering (Variety)
Second Language	Spanish, French, Latin or English	Spanish, French, Latin or English	Spanish, French, Latin or English
Wellness (Half year)	Not leveled	Not leveled	Not leveled

TESTING

Marlborough High School offers the following exams to students in addition to the state's required MCAS exams:

- Preliminary SAT (PSAT) exam - offered to all 10th grade students at no cost
- QCC College Entrance Exam for writing - offered to all 10th grade students at no cost
- AP exams - required of all AP students at a cost (students may be eligible for financial assistance)
- SAT exam - optional and offered at a cost (students may be eligible for financial assistance)
- SAT Subject tests - optional and offered at a cost
- ACT exam - optional and offered at a cost

It is highly recommended that all students planning to attend a four-year college complete SAT and/or ACT testing requirements before the end of junior year (11th grade). Students that plan on applying to highly competitive four-year colleges may be required to take certain SAT Subject tests. Students should refer to a college's handbook and consult with their guidance counselor for requirements specific to each school.

EDUCATION PROFICIENCY PLAN (EPP)

Students who receive a score of "Partially Meeting Expectations" on the state's ELA and/or mathematics MCAS exam(s) are required to complete an EPP. The guidance counselor and assistant principal monitor the EPP to ensure that the student is taking appropriate courses and working towards meeting the benchmarks required to receive a high school diploma. The principal will determine whether a student should receive a diploma based on successful completion of an EPP.

GUIDANCE SERVICES

Guidance services consist of the College and Career Readiness Program, coordination of state and national assessments, parent outreach, social/emotional student support, and other counseling and/or advising services that promote civic and social responsibility. The guidance curriculum is focused on the following goals: (1) to identify and define problems, (2) gather and analyze information, (3) draw and apply conclusions, and (4) draw upon organizational skills while writing, speaking, and reading effectively.

Grade 9 topics include transition to high school, introduction to Naviance, self-interest surveys, goal-setting, time management skills, decision-making strategies, and student/counselor communication.

Grade 10 topics include MHS graduation requirements, MCAS performance, Adams and Koplik scholarships, state college/university requirements, PSATs, time management, setting and attaining personal goals, career pathways, and Naviance resources.

Grade 11 topics include review of progress towards graduation, post-secondary planning, PSAT, SAT, and ACT timelines, college search, college recommendations, and Naviance resources.

Grade 12 topics include review of progress towards graduation, post-secondary planning, college application process, transcript requests, financial aid applications, career internships, military and other post-secondary options, job interview skills, financial planning, and Naviance resources. In addition, the school's Career Specialist can assist students with resources, skills and opportunities to enter the workforce immediately following high school.

SPECIAL EDUCATION SERVICES

In accordance with state regulation, prior to a referral for special education, every effort must be made to meet students' needs within the general education setting. Some methods of achieving this are through consultations with teachers, the Student Support Team (SST) process, and accessing the District Curriculum Accommodation Plan (DCAP)/Building Curriculum Accommodation Plan (BCAP). If concerns still exist, then a referral for evaluation may be deemed appropriate. Massachusetts Special Education law and the federal Individuals with Disabilities Act (IDEA) require specially designed instruction or related services to all students who are found to be eligible. Students qualify for special education services after exploring three areas. First, a determination of a disability is made. Next, the team must determine if there is a lack of effective progress. Lastly, the team must determine if the lack of progress is due to the student's disability and if the student requires specially designed instruction in order to make effective progress in school or needs related services in order to access the general curriculum. If it is determined that a student is eligible for special education services, then an Individual Education Program (IEP) is created. This IEP will either call for specially designed instruction or related services as deemed appropriate by the IEP team. State and federal laws continue to call for the provision of services in the Least Restrictive Environment (LRE) to the greatest extent possible.

WORK INTERNSHIPS

Internships organized through our Career Center help prepare students to experience the world of work. The Career Specialist will engage students in discussions about professionalism and skills such as organization, timeliness, presentation and communication. In addition, students will develop other skills such as professional networking, creation of cover letters, interview, résumés, and career planning. A Work-Based Learning plan will be completed at intervals to monitor progress on the worksite. Course credit may be awarded with administrative approval.

COMMUNITY/SCHOOL SERVICE

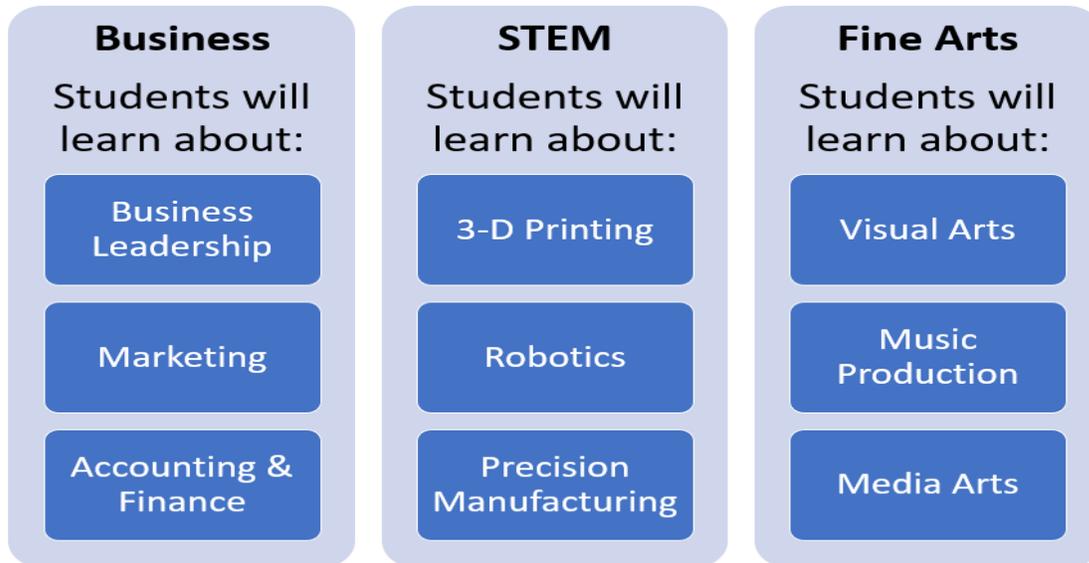
Community Service opportunities can be accessed through Marlborough High School, the City of Marlborough, and surrounding communities. Students interested in community service should consult with their guidance counselor. Participation in community service can serve to strengthen a student's college application. No credit will be granted for community service participation and/or projects.

ALTERNATIVE HIGH SCHOOL - EXPLORE PROGRAM

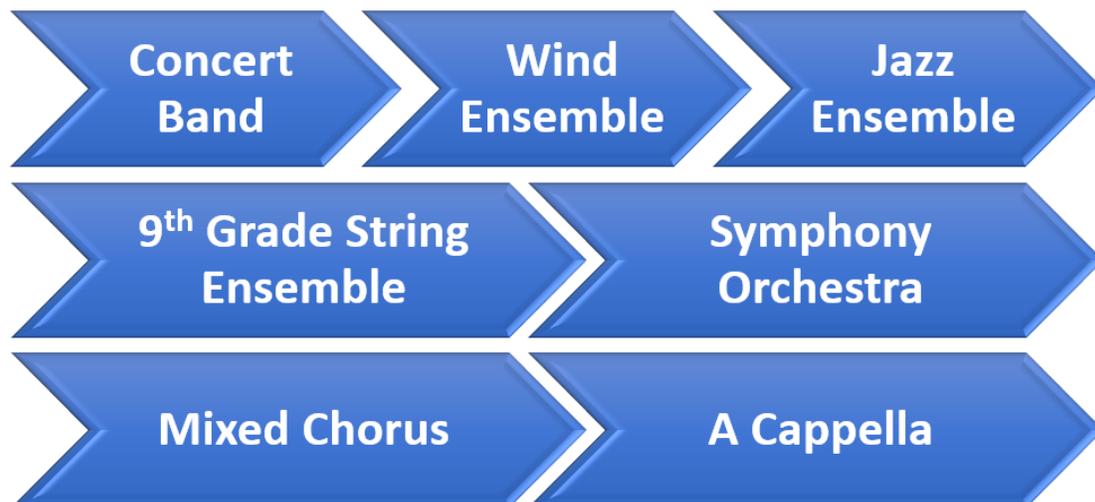
Marlborough High School offers a specialized program as an alternative high school placement for students with particular educational needs. Parents should contact an assistant principal for additional details regarding this program.

Freshman and Sophomore Team Learning Opportunities

Marlborough High School offers interdisciplinary project-based learning (PBL) in STEM, Fine Arts and Business. All freshmen and sophomore students self-select into one of the following team-based experiences:



Please note: All 9th and 10th grade students have access to our full year performing groups. Students can have these full year courses substituted for up to two (2) half year courses.



These thematic opportunities are not “pathways” constructed to prepare students for a career after high school. Rather, they help guide our teacher teams to bring curriculum to life with real-world applications. This curriculum is designed to make learning fun, rigorous, and relevant. For example, our sophomore STEM students may incorporate a project-based learning experience that requires them to plan for colonizing Mars. This project brings all content areas together and highlights important aspects of what students learn in each course of study.

Interdisciplinary PBL is separated out for grading purposes. Students will receive a PBL grade on their report card for each semester during grades 9 and 10. PBL grades are unweighted and have no bearing on Grade Point Average (GPA). Including this grade on our transcript helps MHS students demonstrate to colleges that they have participated in multiple years of interdisciplinary PBL.

Courses:

Project-based Learning (PBL) 9 and Project-based Learning (PBL) 10
2 credits (1 credit per semester)



Marlborough High School and Quinsigamond Community College
Early College Program

Marlborough High School (MHS), in partnership with Quinsigamond Community College (QCC), will offer the following early college courses as an option for all interested students beginning junior year.

This is a free experience for MHS students. All expenses including tuition, fees, and course materials are covered through the Marlborough Public Schools. Students may earn up to 12 free college credits through this program.

Early College pathway courses are delivered by the faculty of MHS during the regular school day and count towards MHS graduation requirements. The MHS faculty assigned to these courses will be recognized as adjunct professors.

All early college pathways align with the MassTransfer program which enables participating students to carry credits from QCC to articulated four-year institutions. As such, these courses would best meet the needs of any student looking to pursue a 2- or 4-year college experience after high school.

All college courses will be weighted the same as Honors coursework for GPA purposes.

College entrance exams will be administered for applicable courses to ensure that all required prerequisites are met.

For more information on the MassTransfer program please visit,

<http://www.mass.edu/masstransfer/>

For more information on the cost savings associated with the community college pathway please visit,

<http://www.usnews.com/education/blogs/student-loan-ranger/2011/05/18/starting-at-community-college-can-save-thousands>

Early College Course Offerings

ENG 101 COMPOSITION I

In Composition I, students write a minimum of four essays in multiple drafts in addition to shorter writing assignments, such as journals or discussion posts, with emphasis on audience awareness; critical thinking and reading; thesis development; organization; and grammatical correctness. Readings from various disciplines provide writing models and material for analysis

of ideas. Students also evaluate, incorporate, and document sources from print, Internet, and library databases to support their writing.

Prerequisites: ENG 101 qualifying score on placement exam or *ENG 097 with a grade of “C” or higher.

QCC College Credits: 3

MHS English Credits: 2

ENG 102 COMPOSITION II

In Composition II, students produce a minimum of four essays of carefully crafted prose. Student writers practice integrating and citing readings from academic disciplines, including literature; their research-based documented essays are expected to reflect the ethical standards of formal argument.

Prerequisites: ENG 101

QCC College Credits: 3

MHS English Credits: 2

PSY 101 INTRODUCTION TO PSYCHOLOGY

In this survey course, the student becomes aware of and appreciates the various influences on behavior. The topics covered include, but are not limited to, the nervous system, sensation and perception, motivation, learning, emotion, and personality. Through an investigation of these areas, within a multiplicity of cultural contexts, the student understands the diversity of the human condition.

Prerequisites: ENG 101 qualifying score on placement exam or *ENG 097 with a grade of “C” or higher.

QCC College Credits: 3

MHS History Credits: 2

SOC 101 INTRODUCTORY SOCIOLOGY (PRINCIPLES)

This course introduces basic theories and vocabulary of sociology including its historical origins and research process. It examines the major principles that govern the structure and function of society, its institutions, groups, and processes. Students learn how people in society decide to meet the social, psychological, economic and everyday needs of its members. The course emphasizes making connections between students’ personal lives and the social change occurring around them.

Prerequisites: ENG 101 qualifying score on placement exam or *ENG 097 with a grade of “C” or higher.

QCC College Credits: 3

MHS History Credits: 2

**Beginning in the 2019-20 school year, all MHS 11th grade College Prep (CP) Composition and Communications courses will include curriculum aligned with the QCC ENG 097 final benchmark exam. Students that acquire a grade of “C” or higher in this course will qualify to take ENG 101, PSY 101, and/or SOC 101 during senior year.*



**Marlborough High School and Patriot Ambulance, Inc.,
Emergency Medical Technician (EMT) Certification Program**

Marlborough High School (MHS), in partnership with Patriot Ambulance, Inc. will offer the following EMT certification program as an option for interested seniors (Grade 12) students.

This is a free experience for MHS students. All expenses including tuition, fees, and course materials are covered through the Marlborough Public Schools. Students may earn 12 credits towards their Marlborough High School graduation requirements through this program.

EMT coursework will be delivered by professional trainers at a local Patriot Ambulance, Inc., location. Transportation services may be provided for participating students.

Students will enroll in MHS classes during the morning session to continue with necessary graduation requirements (i.e. English, mathematics, etc.).

This coursework will not be weighted for GPA purposes.

Interested students should speak with their guidance counselor prior to applying. This program may have limited availability for enrollment due to funding restraints. Students will be registered, and a lottery employed to help make fair and objective selections if applications exceed availability.

This program is designed to provide participating students with three outcomes:

- Professional certification as an Emergency Medical Technician (EMT)
- Training in Emergency Medical Dispatch (EMD) and Public Safety Telecommunication (PST)
- Work experience in the field through Patriot Ambulance, Inc.

Schedule (at Patriot Ambulance location):

- 10:45am – 1:45pm on school days (only on days when school is in session)
- Lunch can be arranged through the MHS cafeteria for students opting to purchase lunch through the school. Free and reduced lunch status applies.

Curriculum structure and goals:

- Emergency Medical Technician (EMT) course – 165 hours (Culminating exam required for certification)
- Public Safety Telecommunication (PST) course – 40 hours
- Emergency Medical Dispatch (EMD) course – 32 hours
- Field experience – 90 hours

English

The English Department is committed to engaging students in the examination of literary and informational texts to enhance their reading and writing skills. Students will communicate effectively, think critically, collaborate productively, and solve problems efficiently. All students must pass four years of English in order to graduate from Marlborough High School.

HONORS FRESHMAN ENGLISH

Through the study of short stories, novels, non-fiction, poetry, and drama, students will increase their understanding of, and appreciation for, literature and reading. Students will improve their writing skills through a process approach to composition. Students will also be introduced to the basic elements of the research paper. Literacy skills will be emphasized to ensure students are prepared to take the MCAS in their sophomore year.

PREREQUISITE: Successful completion of Eighth Grade English

Full year course: 4 credits

HONORS SOPHOMORE ENGLISH

This course will stress comprehension as well as basic inference and literary analysis. The course will also continue to improve student writing skills through a more advanced study of grammar and composition which will include the writing of a research paper. Students will also expand their understanding of, and appreciation for, reading and literature. Additional emphasis will be placed on vocabulary development, reading comprehension and the writing skills necessary for success on the MCAS and PSAT.

PREREQUISITE: Successful completion of Freshman English

Full year course: 4 credits

CP COMMUNICATION AND COMPOSITION

This full year junior course centers on the fundamentals of rhetoric and composition. Various rhetorical techniques will be explored as well as numerous literary and nonfiction selections, with an emphasis on American texts. Additional emphasis will be placed on word choice/vocabulary development, reading comprehension and the writing skills necessary for future success in college and careers. The course is a productive means of helping students improve their abilities to think, read, and write on progressively more sophisticated levels. Students will be guided through the writing process, from planning and drafting to revision and publication- in both oral and written form. Curriculum will focus on and encourage students in all processes of composition – inventing, drafting, revising, and editing. This course is designed to prepare students for the English 101/102 college course sequence.

PREREQUISITE: Successful completion of Sophomore English

Full year course: 4 credits

ADVANCED PLACEMENT LANGUAGE AND COMPOSITION

Reading and writing are companion activities that involve students in the creation of thought and meaning – either as readers interpreting a text or as writers constructing one. Students will regularly analyze prose - both fiction and nonfiction - and demonstrate their understanding of rhetoric by writing essays using various rhetorical modes, applying close reading techniques, and displaying mastery of style and grammar. Students will take the AP Language and Composition exam in the spring.

PREREQUISITE: Successful completion of Sophomore English

Full year course: 4 credits

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION

This AP course will engage students in the careful reading and critical analysis of literature. Through the close reading of selected texts, students will deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students will consider a work's structure, style, and theme. Writing assignments will focus on the critical analysis of literature and will include expository, analytical, and argumentative essays. Students will take the AP English Literature and Composition exam in the spring.

PREREQUISITE: Successful completion of Junior English

Full year course: 4 credits

HONORS WORLD LITERATURE

COLLEGE PREP WORLD LITERATURE

This course will introduce students to works of literature that encompass a world view not limited to British or American authors. Students will analyze and evaluate the literary works and will be expected to understand how the themes of such works reflect a global community. An eclectic array of texts read in this course range from the classics of Ancient Greece to more contemporary works. Additional emphasis will be placed on vocabulary development, reading comprehension and writing skills necessary for success on the SAT. Analytical writing in response to literature will also be emphasized throughout the course.

PREREQUISITE: Successful completion of Junior English or ENG 101 qualifying score on placement exam (for Honors World Literature).

Full year course: 4 credits

HONORS MEDIA LITERACY AND POPULAR CULTURE

COLLEGE PREP MEDIA LITERACY AND POPULAR CULTURE

Being an informed, engaged citizen in the 21st century requires us to critically assess all forms of media, including, but not limited to news articles, editorials, blogs, podcasts, film, television. Our world demands that we not simply receive information passively but that we actively interact with various media and participate in the creation of new knowledge. Through critical reading and writing, and by often contrasting visual and multimedia texts with their print counterparts, students will analyze the strategies creators of visual texts use to convey meaning. Students will also be encouraged to create texts in various media and genres.

In a course centered on media literacy, students will engage with texts that specifically deal with issues that are centered around popular culture. Students will use various critical lenses to assess the subjectivity and/or objectivity of the texts.

PREREQUISITE: Successful completion of Junior English or ENG 101 qualifying score on placement exam (for Honors Media Literacy).

Full year course: 4 credits

ELECTIVES

These courses do not replace the yearly English course requirement if taken for two consecutive semesters.

ELA SUPPORT 9

ELA SUPPORT 10

ELA SUPPORT 11/12

This course is intended to assist students who need additional support as they develop foundational reading, writing, and speaking and listening skills. The course will offer tutorial support, basic skills review and development, pre-teaching of new concepts along with re-teaching those concepts which students still struggle with. The course is intended to increase students' understanding of and comfort level with literary and rhetorical concepts by reviewing regularly throughout the year. English Support will be taught in conjunction with the corresponding grade-level English course.

Semester course: 2 credits

MCAS ENGLISH REVIEW

This recommended course is designed for those students who are in need of extra preparation for the yearly MCAS testing. It will be taken in addition to a student's required English course.

Semester course: 2 credits

INTENSIVE LITERACY SEMINAR

Designed to help students make at least 2 years of growth in an academic year, this class is an intensive reading intervention course for developing readers, with a focus on word study, comprehension, and fluency. Throughout the course, students will be expected to read widely and often and to use critical thinking skills.

Full year course: 4 credits

Mathematics

The Marlborough High School Mathematics Department provides students with comprehensive course options to prepare them for success in post-secondary opportunities. All students are required to pass four years of math. All of our courses serve to create critical thinkers and problem solvers who can communicate using verbal and written skills; gather, analyze, and evaluate information; collaborate to achieve a common goal; apply knowledge to solve problems; and demonstrate media and technology literacies.

The mathematics courses at Marlborough High School are aligned to the Massachusetts Mathematics Curriculum Frameworks, including the Common Core Standards for Mathematical Practice, which define the knowledge and skills that students should have to graduate from high school prepared for entry-level college courses or workforce training. The standards require students to think and reason mathematically about real-world situations; to use mathematics to analyze problems in order to understand them and make better decisions; and places an emphasis on mathematical modeling.

Students will typically follow one of the progressions shown in the table below. Course recommendations are generally based on the course prerequisites and a student's study and work habits. The "lanes" in the table do not represent course levels, nor are students restricted to a particular "lane" once they have started. Please note that all course offerings do not appear in the table, and parents are encouraged to discuss their child's progress each year with his/her teacher.

Grade	Lane 1	Lane 2	Lane 3
9	Honors Algebra 1	Algebra 1 Essentials	SEI Integrated Math 1
10	Honors Geometry	Geometry Essentials	SEI Integrated Math 2
11	Honors or CP Algebra 2	Algebra 2 Essentials	CP Algebra 2
12	Pre-Calculus or Calculus	Grade 12 Math Essentials	Pre-Calculus or Topics

In addition to the courses listed in the table, students are encouraged to consider the following course offerings:

- AP Calculus AB/BC

- AP Statistics

- AP Computer Science/Introduction to Programming in Java

HONORS ALGEBRA 1

ALGEBRA 1 ESSENTIALS

Algebra 1 is an introduction to the major function families that will serve as the foundation for all subsequent courses. Within each function family, students will simplify, solve, write, and graph to make connections between the various representations. Students' understanding of these functions and their relationships will be deepened as they think, reason, persevere, and model with mathematics. Topics include: equations/inequalities; functions/graphs; linear functions; systems of equations; polynomials; quadratic functions; absolute value functions; exponential functions; and statistics. All levels will use technology, such as graphing calculators, and online graphing tools throughout the course.

PREREQUISITE: 8th grade math

Full year course: 4 Credits

MATH SUPPORT 9

This course is intended to assist students who were struggling with foundational skills during their previous course work. The course will offer tutorial support, basic skills review and development, pre-teaching of new concepts along with re-teaching those concepts which students still struggle with. The course is intended to increase students' understanding and comfort level with key algebraic concepts by reviewing regularly throughout the year. Math Support 9 will be taught in partnership with an Algebra 1 course.

PREREQUISITE: 8th grade math

Semester course: 2 Credits

HONORS GEOMETRY

GEOMETRY ESSENTIALS

Geometry adds significant depth to the applications of the different skills students developed in Algebra 1. Students begin to transition from solving a problem given to them to instead taking given information to set up a problem on their own and then solve it. Students will learn fundamental geometric concepts regarding the building blocks of geometry, the three undefined terms of geometry and angles, along with properties of two-dimensional and three-dimensional figures. Measurement in both 2 and 3 dimensions such as area, surface area and volume are covered in depth. During their studies with right triangles, students also get their first introduction to trigonometry, an area of math they will continue to use in Algebra 2 and beyond. Students look at these different geometric properties both synthetically and analytically, sharpening their algebraic skills in conjunction with the properties and applications of geometry they learn during this course.

PREREQUISITE: Algebra I

Full year course: 4 Credits

MATH SUPPORT 10

This course is intended to assist students who were struggling with foundational skills during their previous course work. The course will offer tutorial support, basic skills review and development, pre-teaching of new concepts along with re-teaching those concepts which students still struggle with. The course is intended to increase students' understanding and

comfort level with key algebraic and geometric concepts by reviewing regularly throughout the year. Math Support 10 will be taught in partnership with a Geometry course.

PREREQUISITE: Algebra I

Semester course: 2 Credits

HONORS ALGEBRA 2

COLLEGE PREP ALGEBRA 2

ALGEBRA 2 ESSENTIALS

Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include logarithmic, polynomial, rational, and radical functions in Algebra II. Students work closely with the expressions that define the functions, with algebraic manipulations of expressions, and continue to expand and hone their abilities to model situations and to solve equations, including solving polynomial equations and solving exponential equations using the properties of logarithms. All levels will use technology, such as graphing calculators, and online graphing tools throughout the course.

PREREQUISITE: Algebra I and Geometry

Full year course: 4 Credits

COLLEGE PREP INTERMEDIATE ALGEBRA 2A

This course covers the curriculum standards from the first half of Algebra 2, spread out over the course of one year. Topics include: numbers and operations, equations and inequalities, linear functions, and systems of equations. There will be a focus on functions, their graphs, and problem situations that can be modeled using functions.

PREREQUISITE: Teacher recommendation.

Full year course: 4 Credits

COLLEGE PREP INTERMEDIATE ALGEBRA 2B

This course covers the curriculum standards from the second half of Algebra 2, spread out over the course of one year. Topics include: quadratic functions, polynomials, exponential functions, rational expressions, and statistics/probability. There will be a focus on functions, their graphs, and problem situations that can be modeled using functions.

PREREQUISITE: College Prep Intermediate Algebra 2A

Full year course: 4 Credits

COLLEGE PREP PRE-CALCULUS

This course combines the trigonometric, geometric, and algebraic techniques needed to prepare students for the study of calculus, and strengthens students' conceptual understanding of problems and mathematical reasoning in solving problems.

PREREQUISITE: Algebra 2

Full year course: 4 Credits

GRADE 12 MATH ESSENTIALS

This course will strengthen students' algebraic and problem solving skills through real life applications. Geometry and Algebra II concepts will be expanded upon in addition to other topics that will be tailored to meet the needs of students in the class.

PREREQUISITE: Algebra 2

Full year course: 4 Credits

ADVANCED PLACEMENT CALCULUS AB

ADVANCED PLACEMENT CALCULUS BC

These courses will cover the topics in differential and integral calculus as outlined in the AB/BC syllabus for the AP program. The curriculum for AP Calculus AB is equivalent to that of a first-semester college calculus course, while AP Calculus BC is equivalent to both first and second semester calculus courses. AP Calculus teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. All students who take this class are expected to take the AP Calculus exam in the spring.

PREREQUISITE: Algebra 2 or Pre-Calculus

Full year course: 4 Credits

AP CALCULUS BC & INTRO TO MULTIVARIABLE CALCULUS

This course is intended for students who have successfully completed AP Calculus AB. This course will cover the topics in differential and integral calculus as outlined in the BC syllabus for the AP program. Students will then expand their knowledge of Calculus studying differentiation and integration of several variables, optimization, and vector fields.

PREREQUISITE: AP Calculus AB

Full Year Course: 4 Credits

ADVANCED PLACEMENT STATISTICS

This course will cover all topics as outlined in the syllabus for AP Statistics and is designed to cover a one-semester introductory non-calculus-based college course in statistics. Students will learn the most fundamental components of numerical data analysis, including creating experiments, choosing samples, and statistical inference. Along the way, topics in probability and regression will be covered. Students must have a handheld calculator with advanced statistics functions, such as the Texas Instruments models TI-nSpire, TI-83, or comparable models from other manufacturers. All students who take this class are expected to take the AP Statistics exam in the spring.

PREREQUISITE: Algebra 2

Full year course: 4 Credits

HONORS INTRO TO CALCULUS

This course provides students with an introduction to the major topics in calculus, including how things change and how they accumulate. It provides a framework for modeling systems in which there is change, and it enables us to predict the behavior of such systems. Students will learn about integral calculus, which presents the concept of infinitesimal (tiny) change and enable them to determine instantaneous rates of change, analyze motion, perform

optimization, and make predictions. Students will also be introduced to integral calculus, which can be used to determine areas and volumes as well as analyze systems that involve accumulating values over time.

PREREQUISITE: Algebra 2

Full year course: 4 Credits

COLLEGE PREP TOPICS IN MATHEMATICS

The focus of this course will be to strengthen and enhance previously learned math skills. Students will explore topics from Algebra 1, Geometry, and Algebra 2 in a deeper way and expand on their conceptual understanding in preparation for college placement exams and college-level mathematics. This course parallels Quinsigamond Community College's MAT 099 remedial math course. Students earning a "C" or better on the MAT 099 final exam are guaranteed placement into QCC's College Level Algebra course.

PREREQUISITE: Algebra 2

Full year course: 4 Credits

ADVANCED PLACEMENT COMPUTER SCIENCE/INTRODUCTION TO PROGRAMMING IN JAVA

This course covers the fundamental ideas of programming in Java, with an introduction to object-oriented methodologies. Topics include an introduction to Java syntax, class libraries, standard input and output, basic data structures, and implementation of algorithms. Students also learn methods for testing and debugging. Students taking this course should be confident using Windows, Google tools, and Web interfaces. They are expected to take the AP Computer Science A exam in the spring.

PREREQUISITE: Algebra I

Full year course: 4 Credits

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES

This course introduces students to computer programming and aspects of computer technology, including the use of abstraction and algorithms, big data, the Internet, and cybersecurity. The social, cultural, and economic impacts of computing are also considered. One aim of the course is to encourage participation in computer science among students not attracted to courses that focus on coding. Students are given the opportunity to explore how technology can help understand real-world problems and build relevant solutions. The curriculum uses materials drawn from a number of College Board endorsed curricula. All students who take this class are expected to take the AP Computer Science Principles exam, which includes projects done during the year as well as a section administered in the spring.

PREREQUISITE: Algebra I

Full year course: 4 Credits

MCAS MATH REVIEW

This course is designed for those students who are in need of extra preparation for the yearly MCAS test. This semester offering is intended for students in grades 11-12 who have not previously passed the Mathematics MCAS in grade 10.

Semester course: 2 Credits

SEI COLLEGE PREP FUNDAMENTALS OF ALGEBRA A

This course is designed for students with little or no English proficiency and limited or interrupted formal schooling. It provides students with the necessary foundational skills to be successful in Algebra. Students explore the real number system and the language of Algebra. An emphasis is placed on the continued study of place value, integers, fractions, decimals, order of operations, proportional relationships, variables, expressions, equations, and basic geometry concepts. There is a focus on developing students' language of math while learning these concepts.

PREREQUISITE: A pretest indicating Math level, English language proficiency level 1, and limited or interrupted formal education.

Full year course: 4 Credits

SEI COLLEGE PREP FUNDAMENTALS OF ALGEBRA B

This course provides EL students with the necessary foundational skills to be successful in Algebra. Students explore the real number system and the language of Algebra. An emphasis is placed on the continued study of place value, integers, fractions, decimals, order of operations, proportional relationships, variables, expressions, equations, and basic geometry concepts. There is a focus on developing students' language of math while learning these concepts.

PREREQUISITE: A pretest indicating Math level and English language proficiency level 1 or 2.

Full year course: 4 Credits

SEI INTEGRATED MATH 1

This course provides a deep understanding of concepts from Algebra 1 along with application of geometric theorems and ideas. Students will study algebraic topics such as equations/inequalities, functions/graphs, linear functions, systems of equations, and statistics. Among the geometric topics studied are points, lines, and planes; triangles, polygons, and circles; angles and parallel and perpendicular lines. Students also study surface area, and volume. Additional topics may be added as needed to help students prepare for the yearly MCAS test. There is a focus on developing students' language of math while learning these concepts. **Full Year Course: 4 Credits**

SEI INTEGRATED MATH 2

This course provides a continued deep understanding of concepts from Algebra 1 along with application of geometric theorems and ideas. It is intended for students who have successfully completed SEI Integrated Math 1. Students will study algebraic topics such as polynomials, quadratic functions, exponential functions, absolute value functions, and probability. Among the geometric topics studied are right triangles, trigonometry, similarity,

and 3d measurement. Additional topics may be added as needed to help students prepare for the yearly MCAS test. There is a focus on developing students' language of math while learning these concepts.

Full Year Course: 4 Credits

SEI MATH SUPPORT

This course is intended to assist students who are struggling with foundational skills. The course will offer tutorial support, basic skills review and development, pre-teaching of new concepts along with re-teaching those concepts which students still struggle with. The course is intended to increase students' understanding and comfort level with key algebraic concepts by reviewing regularly throughout the year. SEI Math Support will be taught in partnership with an SEI Integrated Math course.

PREREQUISITE: Student must be enrolled in SEI Integrated Math 1 or 2

Semester Course: 2 Credits

History and Social Sciences

The History and Social Science Department prepares students for intelligent participation in a free and open society. History and social science courses draw upon such disciplines as civics and government, economics, geography, history, psychology, and sociology, as well as the related disciplines of the humanities, mathematics, and natural sciences.

ADVANCED PLACEMENT UNITED STATES HISTORY I ADVANCED PLACEMENT UNITED STATES HISTORY II

This is an accelerated course designed for the highly motivated, academically qualified college-bound student. Using a survey approach to American history, the course develops chronological perspective, thematic interpretation, domestic and foreign policy assessment of American history. Students are expected to carry a college-level workload. All students are required to take the AP exam at the end of AP US II. Students are required to complete the AP summer assignment in order to participate in the AP course in the fall. AP US I students receive honors credit, but their grades are calculated as AP for the purposes of GPA calculation. This course sequence is open to students who have received the recommendation of their current History and Social Science teacher. All selections into AP United States History courses are provisional based upon successful completion of the fourth quarter, final exam (if taken) and final grade.

Full year course: 4 credits

HONORS WORLD HISTORY

Building on their understanding of world geography and civilizations from middle school, students study world history from approximately 500 CE to the present. They study these topics by researching and exploring guiding questions such as, "How do ideas migrate across cultures?", "What brings about change in societies?", and "What does it mean to be modern?" The course focuses on inquiry and source analysis to give students the skills needed to become modern world citizens. Lastly, students will learn to contextualize and corroborate historical sources so that they can be analyzed through the lens of an historian. This course is open to students in 9th grade.

Full year course: 4 credits

SEI COLLEGE PREP WORLD HISTORY

Through sheltered English instruction techniques, students study the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. They study the origins and consequences of the Industrial Revolution, 19th century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They explain the causes and consequences of the great military and economic events of the past century, including WWI, the Great Depression, WWII, the Cold War, and the Russian and Chinese revolutions. Finally, students study the rise of nationalism and the continuing persistence of political, ethnic and religious conflict in many parts of the world.

PREREQUISITE: English language proficiency level 2.

Full year course: 4 Credits

HONORS UNITED STATES HISTORY I

Students examine the historical and intellectual origins of the United States. They learn about the important political and economic factors that contributed to the outbreak of the American Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. Students study the establishment of political, economic & social reforms, and Westward Expansion. Students will also learn about the growth of sectional conflict, how sectional conflict led to the Civil War, consequences of the Civil War and Reconstruction, and the growth of big business. Students will examine the United States through the Progressive era and World War I. In addition, students will examine specific events, both current and historical, through primary and secondary sources. This course is open to 10th grade students who have completed World History.

Full year course: 4 credits

SEI COLLEGE PREP UNITED STATES HISTORY I

Through sheltered English instruction techniques, students build upon their foundation of civic literacy. Students study the establishment of political parties, economic & social reforms, and westward expansion. Students also learn about the growth of sectional conflict, how sectional conflict led to the Civil War, the consequences of the Civil War, Reconstruction, and the growth of big business. Throughout the first semester, students examine the historical and intellectual origins of the United States. They learn about the important political and economic factors that contributed to the outbreak of the Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. Students also study the basic framework of American democracy and the basic concepts of American government such as popular sovereignty, federalism, separation of powers, and individual rights. Students study the three branches of government, key amendments to the US Constitution, and state/local government. In addition, students examine specific elections both current and historical. In addition, Massachusetts history and American culture and civics are integrated into the curriculum.

PREREQUISITE: English language proficiency level 2.

Full year course: 4 Credits

HONORS UNITED STATES HISTORY II COLLEGE PREP UNITED STATES HISTORY II

Students will analyze the causes and consequences of America's growing role in world affairs in the 20th and 21st centuries. Students will evaluate the impact of the boom and bust cycle on the US economy. They will also examine the various influences of political leadership on the needs of citizens. Finally, students will investigate the struggles for civil rights and the resulting social changes on American society. Students will connect these themes to recent events and trends that have shaped modern-day America. This course is open to 11th grade students.

Full year course: 4 credits

FUNDAMENTALS OF CIVICS A

This course is designed to introduce EL students with limited or interrupted formal schooling to the framework of American democracy and the basic concepts of American government while taking into consideration the language of social studies and developing students in the area of civic literacy. EL students continue working on listening, speaking, reading, and writing as they learn English through content.

PREREQUISITE: English language proficiency level 1 and limited or interrupted formal education.

Full year course: 4 Credits

FUNDAMENTALS OF CIVICS B

This course is designed to introduce EL students to the framework of American democracy and the basic concepts of American government while taking into consideration the language of social studies and developing students in the area of civic literacy. EL students continue working on listening, speaking, reading, and writing as they learn English through content.

PREREQUISITE: English language proficiency level 1.

Full year course: 4 Credits

ELECTIVES

LATIN AMERICAN HISTORY

Students in this one-semester course will explore the history of the Latin American region. Topics and themes will include revolutions and independence movements, the formation of democratic and authoritarian governments, cultural and economic developments, and key historical figures who have shaped the region. Students will also examine perceptions and portrayals of the region and the impact of the policies of the United States and Europe upon Latin America. Class activities will include discussions, analysis of primary sources, written arguments, and evaluation of media coverage of the region.

Semester course: 2 credits

AMERICAN LEGAL ISSUES

The goal of American Legal Issues is to help students develop a respect for and knowledge of the American legal system. Through the application of in-class activities focused on constitutional law, students learn the answers to problems faced by citizens every day in criminal and civil legal situations. The curriculum includes vocabulary building, case studies, small group exercises, and visual analysis activities. Students also analyze authentic and hypothetical cases and learn the use of legal forms common to police work, civil law and criminal court proceedings. This course is especially valuable to students pursuing a career in criminal justice.

Semester course: 2 credits

HONORS SOCIOLOGY SOCIOLOGY

Students will examine social facts, which are observable, measurable conditions in people's lives, to learn about social behavior, social differences, and processes of socialization. Topics covered will include human development from birth to adulthood, the effect of social environment on the individual, and the relationship between the group and the individual. Contemporary social problems, such as minorities and discrimination, poverty, crime, and social disorganization will also be discussed. Students will test and evaluate their study of social theory. Class activities will include selected readings, construction of survey questionnaires, and research projects.

Semester course: 2 credits

ADVANCED PLACEMENT ECONOMICS

AP Economics is intended to prepare students for both the Macroeconomics and Microeconomics AP Examinations. Students will study microeconomics during the first semester: basic concepts, supply and demand, market structures and market failure. During the second semester, students will study macroeconomics: national income accounts, aggregate supply and demand, fiscal and monetary policy and international economics. Students should be prepared for extensive independent readings, problem solving and graphing, as well as participation in economic simulations. A strong background in algebra is recommended.

Full year course: 4 credits

HONORS PRINCIPLES OF ECONOMICS

This course prepares students for college-level courses in economics and business administration. First semester teaches thinking with an economic point of view, the mechanics of supply and demand, and macroeconomic topics. Second semester focuses on microeconomic topics such as market structures, labor markets, and market failure. Students will utilize graphs, data tables, and models to solve economic problems. Readings from a college textbook, outside readings of current event articles, simulations, and short papers are components of this course. Since this course includes calculations using various formulae, a strong background in algebra is essential.

Full year course: 4 credits

ADVANCED PLACEMENT PSYCHOLOGY

AP Psychology is equivalent to a one-semester college course. It covers in detail the methods and approaches used in psychological studies, the major schools of psychology, the biological basis of behavior, cognitive processes, human personality, social psychology, abnormal psychology and learning and behavior analysis. Interactive learning activities are utilized as well as other innovative instructional methods. Students will be involved in data gathering, writing and research activities. All students are required to take the AP exam at the end of the course. All students are required to complete the AP summer assignment in order to participate in the AP course in the fall.

Full year course: 4 credits

HONORS PSYCHOLOGY PSYCHOLOGY

This course will involve the student in the scientific study of behaviors and mental processes of individuals within the sociocultural context; in the acquisition of study skills and in the understanding of and preparations for the variety of roles played by individuals. This course will include topics such as the methodology of psychological study, growth and development, neuroscience, sensation and emotion, personality, abnormal psychology, psychological disorders, and social psychology. Learning activities include films, lectures, demonstrations, research projects, discussions, and role playing.

Semester course: 2 credits

ADVANCED PLACEMENT AMERICAN GOVERNMENT & POLITICS

AP American Government and Politics is equal to a one-semester college course. Students will analyze and examine our basic governmental institutions and processes. The United States Constitution will be studied in detail as well as the Federalist Papers. There will be an underlying current events component and a major section incorporating political activism in local, state and national politics. Supreme Court cases in Civil Liberties and Civil Rights will also be examined. This course has a writing and research program and requires a research based project. Students will take the AP Government exam in the spring.

Full year course: 4 credits

Science/Technology and Engineering

The Marlborough High School Science and Technology/Engineering Department's mission is to provide an opportunity for all students to pursue excellence in the study of science and technology/engineering using the process of inquiry to learn the fundamental concepts of the biological sciences, physical sciences, Earth and space sciences, and technology/engineering.

All appropriate courses have been aligned to the Massachusetts Science and Technology/Engineering Curriculum Framework in order to prepare students for success on the subject specific Physics or Biology MCAS tests. Although there are no Chemistry, Earth and Space Science, or Technology/Engineering MCAS tests offered by the Commonwealth of Massachusetts, the curriculums are aligned to the Massachusetts Science and Technology/Engineering Curriculum Framework.

Science/engineering courses often include opportunities for students to complete independent projects that can be showcased at school events or regional and state fairs. Teachers will provide course-specific details of projects and requirements.

The science department is proud to offer Advanced Placement courses in Biology, Chemistry, Environmental Science and AP Physics 1. These courses are approved by the College Board and are equivalent to those offered in the first year of college.

Note that a student will have to consider taking more than one science and/or technology/engineering course per year in order to best prepare for a science/engineering major in college. In addition, it is recommended that any student seeking a career in any science take the applicable AP course.

SCIENCE COURSES

HONORS BIOLOGY

COLLEGE PREP BIOLOGY

The student will be exposed to and participate in the specific topics of the chemistry of life, cell biology, genetics, anatomy and physiology, evolution, biodiversity, and ecology. The format of the course will include lecture, laboratory, discussion, reading, writing, and other methodologies. Students will be expected to complete work outside of the class setting and have effective time management skills. Depth of understanding will be stressed in this course. This course will prepare students to successfully pass the Biology MCAS test.

PREREQUISITE: None

Full year course: 4 Credits

FUNDAMENTALS OF BIOLOGY A

This course is designed for students with little or no English proficiency and limited or interrupted formal schooling. It is designed to strengthen students' competence in science while taking into consideration the language of science and developing students in that area. This course also further prepares students for the Biology MCAS by including the specific topics of cell biology, genetics, anatomy and physiology, evolution and ecology.

PREREQUISITE: English language proficiency level 1 and limited or interrupted formal schooling.

Full year course: 4 Credits

FUNDAMENTALS OF BIOLOGY B

This course is designed to strengthen students' competence in science while taking into consideration the language of science and developing students in that area. This course will also further prepare them for the Biology MCAS by including the specific topics of cell biology, genetics, anatomy and physiology, evolution and ecology.

PREREQUISITE: English language proficiency level 1.

Full year course: 4 Credits

SEI COLLEGE PREP BIOLOGY

Through sheltered English instruction techniques, students are exposed to and participate in the specific topics of the chemistry of life, cell biology, genetics, anatomy and physiology, evolution, biodiversity, and ecology. Other topics, such as biotechnology, are covered during the year. The format of the course includes lecture, laboratory, discussion, reading, writing, and other methodologies. This course prepares students to successfully pass the Biology MCAS test.

PREREQUISITE: English language proficiency level 2.

Full year course: 4 Credits

BIOLOGY I

This is the first of two full year courses. The students will be exposed to and participate in the specific topics of the chemistry of life, ecology, cell biology, and DNA. The format of the course will include lecture, laboratory, discussion, reading, writing, and other methodologies. Additional resources and practice will be provided in order to begin to prepare students to successfully pass the Biology MCAS test after completion of Biology II.

PREREQUISITE: Teacher recommendation.

Full year course: 4 Credits

BIOLOGY II

This is the second of two full year courses. The students will be exposed to and participate in the specific topics of genetics, evolution, biodiversity, and human anatomy and physiology. The form of the course will include lecture, laboratory, discussion, reading, writing, and other methodologies. Additional resources and practice will be provided in order to prepare students to successfully pass the Biology MCAS test.

PREREQUISITES: Successful completion of Biology I and teacher recommendation.

Full year course: 4 Credits

ADVANCED PLACEMENT BIOLOGY

AP Biology is a full year course designed to be the equivalent of a two semester college introductory biology course. The curriculum is centered on four Big Ideas and six Science Practices that incorporate topics in Biology, Chemistry, Physics, and Algebra during extensive inquiry-based laboratory work. Big Idea 1: The process of evolution drives the diversity and unity of life. Big Idea 2: Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis. Big Idea 3: Living systems store, retrieve, transmit, and respond to information essential to life processes. Big Idea 4: Biological systems interact, and these systems and their interactions possess complex properties. Summer work is mandatory and will be assessed at the beginning of the school year. All students enrolled in the course are required to take the AP Biology exam in May.

PREREQUISITE: Successful completion of Biology, Chemistry and teacher recommendation from a Biology teacher.

Full year course: 4 Credits

HONORS HUMAN ANATOMY & PHYSIOLOGY

COLLEGE PREP HUMAN ANATOMY & PHYSIOLOGY

In this full year course, students will be familiarized with the structures and functions of the human body. The curriculum will help prepare students for further specialized work in the fields of medicine, physical education, and other related areas. This course will include basic concepts of the organization and functions of the human body from the microscope to systematic units. The relationship of structure and function is emphasized in the study of the integumentary, skeletal, nervous, muscular, digestive, respiratory, circulatory, and reproductive systems.

Dissections in small groups are used to enrich the curriculum and include a sheep brain, sheep heart, and preserved adult cat.

PREREQUISITE: Successful completion of Biology and/or teacher recommendation.

Full year course: 4 Credits

HONORS ENVIRONMENTAL SCIENCE

COLLEGE PREP ENVIRONMENTAL SCIENCE

This course provides students with the skills to make informed decisions about how their actions relate to the environment. An integrated approach to the basic concepts of biology, chemistry, physics, and earth science will be utilized to study and understand the environment. Topics will include the nature of ecosystems, biodiversity, water chemistry, water, land and air pollution, energy of the ecosystem, alternative forms of energy, recycling and the history of environmental views and actions. Projects may include a community garden. The Marlborough environment will be stressed.

PREREQUISITE: Successful completion of Biology or teacher recommendation.

Full year course: 4 Credits

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions

for resolving and/or preventing them. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. The following themes provide a foundation for the structure of the AP Environmental Science course: science is a process, energy conversions underlie all ecological processes, the Earth itself is one interconnected system, humans alter natural systems, environmental problems have a cultural, social, and economic context, and human survival depends on developing practices that will achieve sustainable systems. Summer work is mandatory prior to the beginning of the school year. All students enrolled in the course are required to take the AP examination in May.

PREREQUISITE: Successful completion of Biology and teacher recommendation. Completion of Chemistry is recommended.

Full year course: 4 Credits

HONORS BIOTECHNOLOGY

COLLEGE PREP BIOTECHNOLOGY

This course will be a detailed and challenging investigation of the science and applications of Biotechnology. The student will be exposed to and participate in the specific topics of bioethics, cell biology, DNA structure and replication, protein synthesis, recombinant DNA, PCR, and cloning. Laboratory experiences will include sterile technique, DNA extractions, creating recombinant DNA, DNA and protein electrophoresis, cell transformation, and PCR.

PREREQUISITES: Successful completion of Biology and Chemistry.

Full year course: 4 Credits

COLLEGE PREP INFECTIOUS DISEASES

This is a full year course designed for those students interested in learning about infectious diseases. It is recommended for any student interested but especially those considering a career in the field of medicine and other related areas. In this course, students will learn about the different types of infectious diseases, including specific types of bacteria and viruses, how they attack the body and methods of treatment. Students will study various types of disease transmission, how diseases can spread through a population, and methods to stop an outbreak. Current event topics such as SARS-CoV-2, antibiotic resistance, and vaccines will also be discussed. Material will be covered through classroom lectures, discussions, individual and group work, and supplemented with case studies, documentaries and film. THERE IS NO TEXT - ONLY GOOGLE CLASSROOM.

PREREQUISITES: Successful completion of Biology.

Full year course: 4 credits

MCAS BIOLOGY REVIEW

This course is designed for those students who are in need of extra preparation for the yearly MCAS biology test. This course is recommended for any student in grades 10, 11, and 12 who did not pass the MCAS biology test in grade 9 or 10 as well as second semester grade 10 students that could benefit from the additional exam preparation.

Semester course: 2 Credits

HONORS CHEMISTRY

COLLEGE PREP CHEMISTRY

This course is designed to teach students the facts, formulas, and chemical principles outlined in the Massachusetts Science and Technology/Engineering Curriculum Framework. In addition, understanding of basic chemical concepts and principles will be emphasized along with the development of critical thinking and problem solving skills. The laboratory component will allow students to experience and demonstrate concrete application of theoretical principles. Scientific topics include matter and energy, atomic and molecular structure, periodic trends, chemical bonding, and the study of several types of chemical reactions including acid/base reactions. Solutions, gas laws and the calculations associated with them will be studied. The stoichiometric relationships involved in chemical reactions will be examined and applied requiring strong mathematical skills in both Honors and College Prep.

PREREQUISITE: Successful completion of Algebra I.

Full year course: 4 Credits

ADVANCED PLACEMENT CHEMISTRY

AP Chemistry is designed to be the equivalent of a first year college chemistry course. Throughout this course the theoretical aspects of chemistry will be emphasized while covering such topics as the structure of matter, kinetic theory of gases, chemical equilibrium, chemical kinetics, and the basic concepts of thermodynamics. Relationships between chemistry and environmental and societal issues will be drawn through investigations into chemical reactivity and an introduction to organic chemistry. The AP Chemistry program includes a strong laboratory component stressing observation, experimentation, analytical thinking, and communication. Strength in mathematical skills is essential in all aspects of this course. Students enrolled in the course are required to take the AP Chemistry examination in May. Summer work is mandatory prior to the beginning of the school year.

PREREQUISITE: Successful completion of Chemistry, Algebra I and teacher recommendation.

Full year course: 4 Credits

HONORS EARTH AND SPACE SCIENCE

COLLEGE PREP EARTH AND SPACE SCIENCE

This laboratory-oriented course will enable students to develop a broad frame of reference into which the individual branches of Earth Science can be integrated. Students will develop an understanding of the Earth's dynamic processes through geological and historical records of the Earth, as well as understanding the processes governing the creation, movement, and evolution of celestial bodies in the Universe. This course is recommended for any student interested in the field of Environmental Science, or associated fields in Natural Resources or Resource Use. Students will investigate the forces that affect the shaping of Earth's surface from plate motion to weathering, the impact that humans have on the Earth in regard to resources, their recovery, and usage, and finally how the assembly and mechanics of the Cosmos influences our place in the Universe and impacts our life on Earth.

PREREQUISITE: None

Full year course: 4 Credits

HONORS INTRODUCTORY PHYSICS

COLLEGE PREP INTRODUCTORY PHYSICS

This course is designed for students to study the fundamental laws of physics occurring in the world around them, stressing both conceptual and mathematical interpretations. Students will study the causes and effects of motion in units focused on velocity, acceleration, force, work, and energy and its transformations. The study of energy also includes a unit on mechanical and electromagnetic waves. This will be followed by the study of electricity and electromagnetism. Skills will focus on application of science practices. This course is aligned with the 2016 MA Curriculum Frameworks and will prepare students to successfully pass the Physics MCAS.

PREREQUISITE: None

Full year course: 4 Credits

HONORS PHYSICS

COLLEGE PREP PHYSICS

This course is designed for students to develop an understanding of the physical events occurring in the world around them and make them aware of the causes and predictability of these events. Topics for this course include motion, mechanical and electromagnetic waves, static electricity, current electricity, and magnetism. Concepts will be explored through discussion of theory, laboratory experiments, inductive reasoning, demonstrations, and problem solving. Laboratory experiences may include traditional and computer assisted data acquisition and analysis. Strong mathematical reasoning skills are essential for problem solving and success. This course will prepare students to successfully pass the Physics MCAS.

PREREQUISITE: Successful completion of Algebra I.

Full year course: 4 Credits

SEI COLLEGE PREP PHYSICS

Through sheltered English instruction techniques, students study the fundamental laws of physics occurring in the world around them, stressing both conceptual and mathematical interpretations. Students study motion and its causes and effects in units focused on velocity, acceleration, force, work, power, and energy. The study of energy expands into a unit on mechanical and electromagnetic waves. This is followed by the study of static electricity, current electricity, and magnetism. Skills focus on laboratory procedure, algebraic manipulations, graphical interpretations, and project based learning. This course prepares students to successfully pass the Physics MCAS test.

PREREQUISITE: English language proficiency level 2.

Full year course: 4 Credits

ADVANCED PLACEMENT PHYSICS 1

AP Physics 1 is designed to be the equivalent of a first semester college introductory physics course without calculus. To quote the College Board description: "In most colleges, this is a one-year terminal course with a laboratory component and is not the usual preparation for more advanced physics and engineering courses. However, the AP 1 course often provides a foundation in physics for students in the life sciences, pre-medicine, and some applied sciences, as well as other fields not directly related to science". This course will follow the AP Physics 1 curriculum. The course covers Newtonian mechanics (including rotational dynamics and angular

momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits. The course stresses theory and application and will further develop the students' analytical and critical thinking skills. A laboratory component is included. All students enrolled in the course are required to take the AP Physics 1 examination in May.

PREREQUISITE: Successful completion of Introductory Physics, Algebra 1 and Geometry, and teacher recommendation.

Full year course: 4 Credits

TECHNOLOGY/ENGINEERING COURSES

INTRODUCTION TO ENGINEERING AND ARCHITECTURE

This is a semester course for students in grades 9-12. During the first term, through lessons, research, and problem solving, students will design and create engineering drawings and construct prototypes to prove their solutions. Engineering drawings will be developed using various accepted engineering drawing practices and techniques including a CAD drawing program. Students will use the Engineering Design Process while they are solving engineering problems and completing projects. While working on these projects, students will utilize physics, math, and English when calculating or reporting their data. A written technical report detailing conclusions may accompany many of the engineering projects. Students will be introduced to the 3D printing process and create their first print. Students will learn, understand, and solve these engineering problems while keeping all their work in an engineering portfolio. During the second term, students will study architectural design and modeling. Students will study architectural form, function, and design while creating three-dimensional architectural models. This course also prepares students for subsequent technical drawing courses, engineering courses, and architectural courses offered by the department.

PREREQUISITE: None

Semester course: 2 Credits

HONORS CAD ENGINEERING AND DESIGN I

COLLEGE PREP CAD ENGINEERING AND DESIGN I

This is a full year course for students in grades 10-12. Students will learn and utilize a CAD drawing program and produce precise engineering drawings and designs. These drawings will be developed using various accepted engineering drawing practices and techniques. Students will use The Engineering Design Process while they are solving engineering problems and completing projects. Through lessons, research and problem solving, students will design and create engineering drawings and construct prototypes to prove their solutions. During these projects, students will utilize physics, math and English when calculating or reporting their data. A written technical report detailing conclusions may accompany many of the engineering projects. Students will learn, understand and solve these engineering problems while keeping all their work in an engineering portfolio. This course also prepares students for subsequent technical drawing courses, engineering courses and architectural courses offered by the department.

PREREQUISITE: None

Full year course: 4 Credits

HONORS CAD ENGINEERING AND DESIGN II

COLLEGE PREP CAD ENGINEERING AND DESIGN II

Students will build on the knowledge gained in Engineering Drawing I. They will expand on their CAD drawing techniques using the Creo 2.0 engineering drawing program. Students will use The Engineering Design Process while they are solving engineering problems and completing projects. Through lessons, research and problem solving, students will design and create engineering drawings and construct prototypes to prove their solutions. During these projects, students will utilize physics, math and English when calculating or reporting their data. A written technical report detailing conclusions may accompany many of the engineering projects. Prototypes and models will be built using a 3D printer. All of the student's work during the year will be kept in their Engineering Portfolio. All students planning to attend college and major in a particular science, math, architecture, or engineering will benefit from this course.

PREREQUISITE: Successful completion of CAD Engineering and Design I

Full year course: 4 Credits

HONORS ARCHITECTURE AND DESIGN I

COLLEGE PREP ARCHITECTURE AND DESIGN I

This class provides a base for any student interested in pursuing a career in architecture. Students will be introduced to the world of architecture by learning how to design, both visually and structurally. Each student will create an individual set of architectural plans. All designs will be created with a CAD drawing tool. While creating, students will also develop an appreciation of historical architects and architectural history. Once the student has completed his or her house plans they will construct a prototype model of their home. These models will be constructed from architectural foam board and will include 3D prints to display their house design. This class is taught through class lectures, demonstrations, and CAD work as well as individual research. Students will use math, science and English skills to complete most assignments and projects. This is an excellent course for any future architect, engineer, mathematician, or scientist.

PREREQUISITE: None

Full year course: 4 Credits

HONORS ARCHITECTURE AND DESIGN II

COLLEGE PREP ARCHITECTURE AND DESIGN II

Students will continue defining and mastering the skills they acquired in Architecture & Design I. Students will gain a greater depth of knowledge in structural engineering as well as design and construction. This course will require the students to design a structure. This structure will be designed through the development of a series of plans that include structural details. Students must know and use architectural and structural engineering principles, techniques and formulas. Students will again use a CAD program to develop drawings and 3D prints. Upon the completion of the design, students will construct two model prototypes. One model will display design and the other will display structural engineering. Students will learn through class lectures and demonstrations as well as individual research. This is an excellent class for any student that may choose a career in engineering or architecture.

PREREQUISITE: Successful completion of Architecture and Design I.

Full year course: 4 Credits

INTRODUCTION TO MANUFACTURING AND PRODUCT DEVELOPMENT

This one semester pathway course exposes students to the manufacturing processes using the engineering design process. Students will develop a new product through research and mock-up development. Students will produce a prototype product and in groups, develop manufacturing processes to mass-produce the product. Emphasis will be placed on multi view drawings, scale and proportion, safe and proper tool usage, and manufacturing processes. During this course, all students will utilize the traditional equipment as well as the Techno CNC 3 axis router and Epilog Fusion M2 Laser engraving machines. This course will be beneficial for students considering engineering and technical drawing courses.

PREREQUISITE: None

Semester course: 2 Credits

INTRODUCTION TO ROBOTICS

This semester course will introduce students to the field of automation and robotics. Students will learn about the development, building and programming of a mobile robot. Students will utilize motorized robotics kits with programmable software as they work in teams to design, build, program and test their systems. Students will document their progress through design briefs. Topics covered will include mechanical design with motor control, gear ratios, torque, sensors feedback loops, open & closed programming loops, Boolean logic, decision-making and timing sequence functions.

PREREQUISITE: None

Semester course: 2 Credits

HONORS INDUSTRIAL ROBOTICS AND AUTOMATION

This year long course is built around the fundamental understanding of industrial systems that make up 90% of manufacturing capabilities worldwide. Students will gain an understanding of the automated industrial workplace as they train on five and six-axis industrial robot arms and learn about PLCs (Programmable Logic Controllers). Learning objectives will be accessed through self-paced curriculum units on the Kuka robot, classroom discussion, field trips and in-class presentations from industry professionals. The course will introduce students to modern manufacturing and prepare them for a career in industrial automation.

PREREQUISITE: None

Full year course: 4 Credits

World and Classical Languages

The World and Classical Languages Department of Marlborough High School seeks to broaden our students' learning horizon through the study of other languages and by fostering a sense of world citizenship.

The study of Spanish and French emphasizes oral proficiency as well as reading, writing, aural comprehension and the study of culture. In Latin, the focus is on grammar, reading, etymology, mythology and Roman History.

The World and Classical Languages course sequence is described in order of vertical progression. A passing grade in the previous level of a language or proficiency interview/test for placement determines the year of a language into which a student will be placed.

While both Honors and College Prep (CP) students cover the same curriculum, there are important differences in expectations and outcomes that distinguish between the two credit options. In Honors classes performance requirements are more rigorous and the evaluation is at a more sophisticated level of mastery than College Prep courses, for both written and oral work. In some cases, College Prep and Honors students may be combined in a single class with accommodations made as appropriate to each level.

Please note that our Spanish and French courses are not intended or necessarily recommended for native/heritage speakers. Students who already have a working knowledge of those languages are encouraged to enroll in an alternate language course. Also, as mentioned in the Principal's opening message, courses are not guaranteed to run, they are subject to staffing and course requests moving into each school year.

The MHS graduation requirement is 2 sequential years of the same language.

HONORS SPANISH I

COLLEGE PREP SPANISH I

The first year of Spanish provides students with a building base for the language through four major skill set components: listening, reading, writing, and speaking. There are several media used to enhance the learning experience such as interactive textbooks, websites, and videos that support grammar, vocabulary, and cultural knowledge. At the end of the first year, students will have gained knowledge of basic grammar and verb conjugations, as well as have learned a series of theme-based vocabulary to allow them to communicate at a beginner's level. The class is conducted in Spanish as much as possible.

Full year course: 4 Credits

HONORS SPANISH II

COLLEGE PREP SPANISH II

This is a Spanish course in which the student is obliged to speak, write, and read in Spanish. After review of verb tenses, grammar, and vocabulary, the student will be introduced to new material including the imperfect tense, and irregular forms of previously learned verb tenses and

grammatical concepts. By the end of the course the student will be able to communicate at an appropriate level in speech, writing, and vocabulary use. Spanish/Hispanic culture is introduced through videos, culture readings, and other materials. The class is conducted in Spanish.

Full year course: 4 Credits

HONORS SPANISH III

COLLEGE PREP SPANISH III

Vocabulary enrichment is accomplished through the discussion of textbook readings and supplemental materials. The mastery of listening and speaking is emphasized through group discussions, dialogues, and oral presentations. Emphasis is placed on major grammatical structures including verb tenses in the preterite, imperfect, present perfect, pluperfect, present subjunctive, future, and conditional tenses as well as commands. Written compositions are required. Spanish/Hispanic culture is incorporated through videos, cultural readings, and supplemental materials. The class is conducted in Spanish.

Full year course: 4 Credits

HONORS SPANISH IV

COLLEGE PREP SPANISH IV

At this level, vocabulary and grammar will be largely expanded to help students conduct more advanced communication. Students will explore different genres of literature. Current events of the Hispanic world will be investigated through various forms of media and presented and discussed via written and verbal summaries. Daily participation in the target language is required. The class is conducted in Spanish.

Full year course: 4 Credits

HONORS SPANISH V

COLLEGE PREP SPANISH V

This is a continuation of the Spanish IV class. Classes are taught in Spanish and students are expected to be motivated and have a desire to speak in the target language. Advanced grammar, conversation, literature, art, and current events will be studied. Use of tapes and DVDs for listening and speaking will also be a part of this course. This class is conducted in Spanish.

Full year course: 4 Credits

ADVANCED PLACEMENT SPANISH LANGUAGE

This is an accelerated course designed for the highly motivated, academically qualified student. This course is designed to cover grammar, literature, and interpersonal and presentational communication at an intermediate college level. Students are required to take the Spanish Language AP Exam in May. Students will be expected to carry a college level workload. This course is taught in Spanish.

PREREQUISITE: Summer reading is a requirement.

Full year course: 4 Credits

HONORS LATIN I

COLLEGE PREP LATIN I

Latin I introduces the student to the language of ancient Rome via synthetic textbook readings. Beginning simply and increasing in grammatical difficulty, the readings follow the daily life of a Roman family. Latin grammar is presented against a background of Roman culture, civilization, and mythology, including the story of the Trojan War. Projects often include making a toga and presentations on gods and goddesses. Much emphasis is placed on building a strong English vocabulary based on Latin roots, as well as on improving the student's ability to manipulate English grammar effectively.

Full year course: 4 Credits

HONORS LATIN II

COLLEGE PREP LATIN II

Latin II is a natural progression of Latin skills, expanding the student's Latin vocabulary and exposure to more complex grammatical constructions. Translation skills continue to be stressed through readings about a Roman family. Roman history, culture and classical influences on Western Civilization are further studied. Medical terms, law terms, and commonly used Latin phrases are explored in an attempt to build an ever-increasing English vocabulary. Readings in English explore ancient heroes such as Perseus, Theseus, Hercules, Odysseus and Aeneas.

Full year course: 4 Credits

HONORS LATIN III

COLLEGE PREP LATIN III

This course represents a transition from grammar study and simple Latin reading passages to the study of Roman authors and reading of authentic Latin literature. The year begins with a review of basic grammar and continues the study of the Latin language and Roman culture. A unit on Roman city planning via the book *City* and a look at Roman Comedy through a reading of Plautus' "Twin Menaechmi" (in English) are included. As the year progresses, students will explore the works of authentic Latin authors such as Pliny and Martial.

Full year course: 4 Credits

HONORS LATIN IV

COLLEGE PREP LATIN IV

This course combines more complex grammar study and review via a workbook with the culture and history of the late Roman Republic and Augustan Rome. By the conclusion of this course, students will have studied the grammar necessary to read authentic Latin authors. Students will study the rhetorical speeches of Cicero and the works of the poets Catullus, Horace, and Ovid in both Latin and English. In addition, students will examine Roman history in more depth, with special emphasis on the Roman emperors of the first and second centuries A.D.

Full year course: 4 Credits

HONORS LATIN V: SELECTED ROMAN AUTHORS PROSE/POETRY

This course is designed for the advanced Latin student who wants to continue a study of authentic Latin literature but does not necessarily want to enroll in the accelerated AP Latin course with its required AP Exam. The first semester will explore the times and works of prose

authors such as Plautus, Cicero, Caesar, Livy, and Suetonius. The second semester will highlight the literary contributions of Roman poets such as Horace, Ovid, and Vergil. A solid foundation of Latin grammar through Latin IV is required for either of these semester courses, however, the works will be read through a literary as well as a grammatical lens.

Full year course: 4 Credits

ADVANCED PLACEMENT LATIN

This is an accelerated course designed for the highly motivated, academically qualified student. Students will read, in Latin, excerpts from Books 1, 2, 4, and 6 of Vergil's Aeneid and selections from Caesar's Gallic Wars, further developing their translation skills and knowledge of Latin vocabulary and grammar. Students will also analyze the poetry of the Aeneid and continue their study of the mechanics of poetry, including poetic devices and meter. Students will also explore diverse literary themes, including leadership, Roman historical context, and war and empire. Students are required to take the AP Exam in May. Students will be expected to carry a college level workload.

PREREQUISITE: Summer reading is a requirement.

Full year course: 4 Credits

HONORS FRENCH I

COLLEGE PREP FRENCH I

Students of French I level will be exposed to the four basic skills of language acquisition: listening, speaking, reading, and writing. Students will engage in conversations, provide and obtain information, express feelings and emotions, and exchange opinions as they come to understand and interpret both the spoken and written word on a variety of topics in the target language. This course will be taught by using a multi-media approach that will ultimately appeal to visual, auditory, and kinesthetic learners, while meeting the individual needs of all students. The study of basic grammar and vocabulary will allow students to understand the nature of the language being studied by comparing and contrasting it with their own. The infusion of culture into the curriculum will also help students deepen their appreciation and respect for the perspectives, practices, and products of Francophones all over the world. This course is conducted in French as much as possible.

Full year course: 4 Credits

HONORS FRENCH II

CP FRENCH II

After completing a review of the present tense of regular and irregular verbs, level I grammar, and vocabulary, students will be introduced to more complex grammatical concepts. They will continue to acquire new vocabulary, read and write on a more advanced level, and study the past, imperfect, future, and conditional verb tenses. In addition, level II students will continue to gain knowledge and understanding of other cultures, and hopefully begin to use the target language for personal enjoyment beyond the school setting. This course is conducted in French.

Full year course: 4 Credits

HONORS MANDARIN CHINESE I

CP MANDARIN CHINESE I

This is an introductory course of Mandarin Chinese language and culture. The course centers on introducing the Mandarin sound system, Pinyin (a phonetic system using the Roman alphabet) and the rudiments of the Chinese writing system. Written applications will be introduced with pen and paper, brush and ink, and word processing. This course also focuses on improving four proficiencies (listening, speaking, reading and writing). Oral performances (dialogues, presentations, and phone-in assignments) are a regular part of the curriculum. Chinese culture will be introduced through interactive and hands-on activities. These will include activities on Chinese history, cooking and eating, holidays and festivals, calligraphy, music, movies, and crafts. The course will be conducted in Mandarin Chinese as much as possible.

Full year course: 4 Credits

HONORS MANDARIN CHINESE II

CP MANDARIN CHINESE II

This course continues the sequence of Mandarin Chinese I. In this course, four proficiencies (listening, speaking, reading and writing) will be further expanded. Oral performances (dialogues, presentations, dramas, interviews and phone-in assignments) will be a regular part of the curriculum. Reading competency will be improved through reading the assigned textbook. Writing practice will be conducted using pen and paper, brush and ink, and word processing. Chinese culture will also be introduced through interactive and hands-on activities. These activities are about Chinese history and literature, cooking and eating, holidays and festivals, folktales, calligraphy, music, movies and crafts. The course will be conducted in Mandarin Chinese.

Business & Information Technology

The Marlborough High School Business and Information Technology department provides meaningful semester-long learning experiences that actively engage a wide variety of interests. We challenge students to be continuous lifelong learners of business, the economy, and information technology.

Through the MHS Business and IT department, students have the opportunity to join the Business Professionals of America (BPA) club. This group competes statewide and nationally for honors and recognition associated with the field of business. In addition, eligible seniors and juniors can be inducted into the Marlborough High School chapter of the National Business Honors Society.

ENTREPRENEURSHIP I

The focus of this course is the “business of business.” The entrepreneurship course is designed to introduce students to what is needed to start a simple business. The controlling functions, accounting, finance, marketing, human resource management, - as well as legal and economic considerations – are all applied. Students will develop an understanding of what it means to be an entrepreneur and how they can use their unique skills and talents to start a small business venture. Topics covered include the characteristics of an entrepreneur, discovering entrepreneurial opportunities, and researching and analyzing domestic, global, and market trends.

Semester course: 2 Credits

FUNDAMENTALS OF MARKETING (I)

Introduction to marketing; survey of topics relevant to comprehensive study of marketing. Emphasis on describing the marketing process and on stressing the implications of these activities for society.

Semester course: 2 Credits

SOCIAL MEDIA MARKETING STRATEGIES (II)

Technology is at the center of many valuable marketing tools and practices. For example, marketers commonly use social media, such as Twitter, YouTube, Facebook, and Instagram; and with various technologies, new approaches and principles have emerged, such as permission marketing and inbound marketing. New types, and increased amounts, of data associated with consumer use of technologies has made marketing analytics vital to effective decision making and performance diagnostics and evaluation (e.g., ROI). It is extremely important for marketers to understand how to effectively use these technologies, leverage new approaches and principles, and understand how to analyze and leverage associated data.

PREREQUISITE: Fundamentals of Marketing (I)

Semester course: 2 Credits

SPORTS AND ENTERTAINMENT MARKETING

Sports and Entertainment Marketing is a unique and innovative course designed for students with an interest in the sports and entertainment industry. This course stresses the utilization of fundamental marketing concepts and will include an orientation to the sports and entertainment industry. Marketing strategies along with topics in sponsorship, pricing, marketing research, endorsements, and promotions will be part of this course. The course will develop critical thinking, decision making and communication skills through real world applications. Students will be prepared to handle specific tasks associated with either industry. This course offers students an edge if pursuing marketing or sports management degrees on the collegiate level. Guest speakers, case studies, field trips, videos and computer integrated activities will be incorporated into the class.

PREREQUISITE: Intro to Marketing

Semester course: 2 Credits

INFORMATION TECHNOLOGY I

Information Technology is a project-based class which utilizes tools such as Microsoft Office and Google Docs & Apps, to reinforce basic computer skills. This inquiry based, problem-solving approach will be merged with the technical requirements for properly formatted business style documents, to prepare students for the digital and business world. During this course students will learn responsible use of technology such as communicating effectively online, security and privacy issues, and acceptable use policies; how to access online resources efficiently using various search techniques. In conjunction with the guidance department, career investigation with the online career planning tools such as Naviance are included in this course.

Semester course: 2 Credits

INFORMATION TECHNOLOGY II

This project-based class will provide students with appropriate skills for technology based communications. Current topics in technology, such as cyber security, augmented vs virtual reality, machine learning, smart technology, Nomophobia (the pathological fear of remaining out of touch with technology) will be incorporated into class projects. Microsoft Office Suite and Google Docs & Apps will be used to solve a variety of spreadsheet and database problems that are likely to be encountered in both the workplace and in the personal life of an individual. HTML/coding and WYSIWYG software will be explored for the purposes of website development. Projects utilizing graphic arts, and layout and design will be developed for the purpose of marketing in school/home and community events using a variety of media platforms such as flyers, posters, video products, audacity, and social media platforms.

PREREQUISITE: Information Technology

Semester course: 2 Credits

PRINCIPLES OF FINANCIAL ACCOUNTING AND REPORTING (I)

Accounting is the language of business, and students need this introductory course in the principles of accounting to prepare for further education or for employment. Problems will be completed both manually and on the computer. After the accounting cycle is presented, students will be able to analyze financial transactions and record them in journals, post to the ledger, and prepare financial statements. Payroll systems will be covered, and the student will become familiar with Excel software.

Semester course: 2 Credits

PRINCIPLES OF MANAGERIAL ACCOUNTING (II)

Students will make entries in the combination journals and subsidiary ledgers, prepare an eight-column worksheet along with adjusting and closing entries. Special journals, sales tax, bad debts, depreciation, notes, accrued revenues and accrued expenses will be introduced. In addition, payroll systems will be reviewed, and the student will advance with Excel software.

PREREQUISITE: Introduction to Accounting

Semester course: 2 Credits

PRINCIPLES OF PERSONAL FINANCE

This course for juniors and seniors is oriented towards financial literacy in today's economy. Students will become familiarized with the fundamental concepts of personal finance topics such as developing a financial plan, saving and investing, credit cards, loans, and retirement planning. Students will also explore economic concepts that include supply & demand, inflation, unemployment, gross domestic product, and market structures.

Semester course: 2 Credits

Visual Arts, Media & Textiles

Our mission is to provide each student with a high-quality, comprehensive program that encourages creativity and innovation, self-expression, critical thinking, and problem solving skills. The curriculum is guided by four artistic practices: Creating work with artistic intent, Responding to the work of others, Connecting artmaking to personal experiences, and Presenting work to an audience.

The Visual Arts include traditional fine arts such as drawing, painting, printmaking, photography, and sculpture; media arts including film and video, graphic communications, animation, and emerging technologies; fibers, textiles and fashion design, jewelry, and other materials.

ART FOUNDATIONS

This course provides a solid foundation in traditional artistic media such as drawing, painting, and sculpture. Students will gain proficiency in observational drawing skills and color theory. Students will also develop an understanding of the elements and principles of design and how artists use them to organize compositions and express ideas. This course explores a variety of methods and techniques which will provide an excellent foundation for other courses offered in the department.

Semester course: 2 Credits

INTRODUCTION TO MEDIA ARTS

This course provides an introduction to media arts including graphic design, illustration, and other forms of visual communication including digital imagining. Students will develop an understanding of the elements and principles of design and how designers use them to organize compositions and express ideas. This course explores a variety of methods and techniques which will provide an excellent foundation for other media arts courses offered in the department.

Semester course: 2 Credits

DRAWING I

This course will explore a variety of materials and techniques used to draw. Emphasis will be placed on observational drawing skills, composition, and expression. Projects will reinforce skills needed to improve technical and imaginative design. Students will work with a range of traditional drawing tools which may include drawing pencils, charcoal, colored pencils, pastel, ink, etc.

Semester course: 2 Credits

PAINTING I

This course will explore a variety of materials and techniques used to paint. Emphasis will be placed on observational skills, composition, and color theory. Projects will reinforce skills needed to improve technical and imaginative design. Students will work with a range of traditional painting materials such as ink, acrylics, watercolor, and mixed media.

Semester course: 2 Credits

DRAWING II

This course continues to explore new techniques and materials including charcoal, pastels, and mixed media. Students will build upon their skills acquired in Drawing I, while gaining proficiency with new materials and creating more advanced compositions. Additional emphasis will be placed on developing personal expression and artistic intent.

PREREQUISITE: Drawing I

Semester course: 2 Credits

ILLUSTRATION

This course is designed to provide an informative introduction into the disciplines of illustration. Students will use traditional drawing and painting techniques as well as a variety of media and technology as they investigate the role of an artist as a storyteller, problem-solver, and reporter. Emphasis will be placed on effective use of the elements and principles of design. Projects will reinforce skills needed to improve technical and imaginative design.

PREREQUISITE: Drawing I or Painting I

Semester course: 2 Credits

HONORS PORTFOLIO

This course is recommended for the advanced art student who needs to prepare a comprehensive portfolio for art school/college applications. Students will further study drawing, painting, and design concepts in a variety of materials as they refine their skills in the visual arts. They will also learn how to prepare digital images of their work suitable for college applications.

PREREQUISITE: Drawing II or Illustration and/or teacher approval.

Semester course: 2 Credits

ADVANCED PLACEMENT DRAWING

This is an accelerated course designed for highly motivated art students and is equivalent to the rigor of a college-level course. Students are expected to conduct an in-depth, sustained investigation of materials, processes, and ideas. They will develop skills of inquiry, experimentation, reflection, revision, and communication about their artistic process. The drawing portfolio requires a minimum of 15 pieces that focus on the use of mark-making, line, light/shade, and composition. Written responses that explain students' artistic investigation and ideas are also a major component of their AP portfolio. Students are expected to work on projects beyond class time and summer work is required.

PREREQUISITE: Drawing II or Illustration and/or teacher approval.

Full year course: 4 Credits

GRAPHIC DESIGN I

This course will provide students with an introduction to the field of graphic design. Students will develop creative problem solving skills through hands-on projects that are linked to the commercial applications and professional practices of graphic design, advertising,

illustration, and visual storytelling. Projects will focus on the study of typography, logo design, digital imagery and manipulation, illustration, and basic layout techniques. Students will create work by hand, and computer application to design will gradually be introduced with the use of industry-standard Mac computers and Adobe design software.

Semester course: 2 Credits

GRAPHIC DESIGN II

This course further explores the various modes of visual communication. Projects will concentrate on more advanced design and layout techniques, including posters and package design. There will be an increased focus on developing innovative and creative solutions to design problems, as well as using industry-standard technology to produce high quality design work. Students will build a design portfolio, explore career options, and learn more about the exciting fields of graphic design, illustration, and animation. This course is highly recommended for students interested in pursuing a career in any of those areas.

PREREQUISITE: Graphic Design I

Semester course: 2 Credits

PHOTOGRAPHY I: DIGITAL AND DARKROOM

This course explores the foundations of fine art photography. Students will learn how to operate the manual functions of digital and film cameras to gain creative control of the images they capture. The elements and principles of design will help students better understand composition and subject matter in their photographs. Students will be exposed to darkroom techniques and digital editing software to refine their images.

Semester course: 2 Credits

PHOTOGRAPHY II

This course continues to expand on digital and darkroom techniques. There will be an increased focus on developing personal expression, artistic intent, and visual communication through photography. Additional concepts will include studio lighting techniques. Students will also gain experience with presentation techniques as they build a collection of work.

PREREQUISITE: Photography I: Digital and Darkroom

Semester course: 2 Credits

PHOTOGRAPHY III

This course is designed for the serious photography student who wishes to further explore photographic techniques as a means for personal expression. Topics may include toning, solarizing, hand coloring, photo collage, kodaliths, holga cameras, and combined techniques. Students will explore the creative possibilities of combining traditional methods and digital processes to create more advanced works.

PREREQUISITE: Photography II

Semester course: 2 Credits

ADVANCED PLACEMENT 2D ART & DESIGN

This is an accelerated course designed for highly motivated art students and is equivalent to the rigor of a college-level course. Students are expected to conduct an in-depth, sustained investigation of materials, processes, and ideas. They will develop skills of inquiry, experimentation, reflection, revision, and communication about their artistic process. The 2D design portfolio requires a minimum of 15 pieces that focus on the purposeful use of elements and principles of design. Design can include a variety of topics such as graphics, photography, illustration, painting, and printmaking. Written responses that explain students' artistic investigation and ideas are also a major component of their AP portfolio. Students are expected to work on projects beyond class time and summer work is required.

PREREQUISITE: Illustration, Photography II, Graphic Design II, and/or teacher approval.

Full year course: 4 Credits

SCULPTURE

Students will design, plan, and create three-dimensional projects using a variety of media. This course will address sculptural issues in depth and space, while creating both functional and non-functional objects. Various elements and principles of design will be explored. Materials may include clay, fibers, cardboard, wood, plaster, wax, paper-mache, fabric, and metals.

Semester course: 2 Credits

CERAMICS I

Students will work with hand building techniques and time permitting, the potter's wheel. Objects made will be functional and sculptural. Students will learn pinch, coil, and slab techniques, the process of firing, and various glazing techniques.

Semester course: 2 Credits

CERAMICS II

This course is designed for students to expand on skills learned in Ceramics I. Students will work on more advanced and independent project ideas and clay techniques. Students will utilize the elements and principles of design and demonstrate good craftsmanship throughout the course. Research and homework will be given to supplement classroom instruction.

PREREQUISITE: Ceramics I

Semester course: 2 Credits

UNIFIED ART STUDIO

This course is designed to meet the individual needs of students in a small group setting. Art-based lessons are planned with special attention to students' physical, developmental, and social-emotional needs. Instruction will focus on fine motor skills, hand muscle control, coordination, manipulation of various materials, and the use of artistic media for self-expression and communication. This course will also support the development of interpersonal and social skills. Upperclassmen who are interested in pursuing careers in education, human services, or the arts will work cooperatively with special education

students in a peer mentoring capacity and will develop leadership and vocational skills.

Semester course: 2 Credits

EXPLORING ART HISTORY

Exploring Art History will provide an introduction and overview of the history of visual art. The course will emphasize how art has been a reflection of culture and society through various historical periods. This is an interactive course. Students will view, discuss, and write about artwork, as well as engage in hands-on projects that reinforce main concepts and stylistic movements.

Semester course: 2 Credits

CLOTHING AND TEXTILES

In this project-based course, students will learn the basics of clothing construction using commercial patterns, appropriate tools and technology, machines available for home sewing and serger machines. Throughout the course, students will learn about fabric selection and care as well as the skills needed to produce, alter or repair fashion apparel and textile products. The information presented in this course is a valuable asset for all students, but students who are interested in careers in the fashion industry will find this course extremely helpful in their future studies.

Full year course: 4 Credits

ADVANCED CLOTHING AND TEXTILES

This project-based course is designed for students who are already proficient in garment construction and wish to acquire more sophisticated construction techniques to create a superior garment. Emphasis will be placed on garment construction in addition to creating a portfolio of advanced techniques, which may be utilized in creating challenging projects of the student's choice. Students will also help in the creation of the annual fashion show of student work, which will be held in the spring.

PREREQUISITE: Clothing and Textiles

Full year course: 4 Credits

TAILORING

This project-based course is an advanced course for students who have successfully completed Advanced Clothing and Textiles and wish to create haute couture, high fashion garments with finishing details found on high priced, ready-to-wear garments. In addition, students will explore the area of fiber studies as it relates to becoming a wise consumer. Students in this class will organize the annual fashion show of student work, which will be held in the spring.

PREREQUISITE: Advanced Clothing and Textiles or teacher approval

Full year course: 4 Credits

VIDEO PRODUCTION I: FUNDAMENTALS

This course introduces the basic skills needed for effective video communication. Instruction includes pre-production, camera operation, picture composition, editing, audio recording and

basic mixing, and continuity. Other topics include production crew positions, scripting/storyboarding, lighting, shot sequencing, and planning. Assignments emphasize field shooting techniques and editing. Students will work with professional quality equipment and digital editing software, and they will gain a deeper understanding of video communication.

Semester course: 2 Credits

VIDEO PRODUCTION II: STUDIO & FIELD PRODUCTION

This course builds on the techniques introduced and practiced in Video Production I. Studio production is introduced and emphasis is placed on adapting field production skills to the studio environment. Students will learn the differences between field and studio work, as well as how to combine them into effective video communication projects. Students will work with state-of-the-art studio technology. Teamwork and collaboration skills are emphasized.

PREREQUISITE: Video Production I

Semester course: 2 Credits

VIDEO PRODUCTION III: VISUAL STORYTELLING

This course focuses on the development of creative shot sequencing and scene development. The WALLDO technique (wide, angle, low, linking, depth, opposite) is used to create dynamic scenes that visually communicate and captivate an audience. Advanced editing techniques, 3D effects, and pacing are all highlighted. Emphasis is on self-expression, technical quality, and effective use of media as a tool for communication. Projects consist of field work, studio work, or a combination of both. Some projects will also be produced for Panther Media (the school district) or WMCT (Marlborough Community Television).

PREREQUISITE: Video Production II

Semester course: 2 Credits

VIDEO PRODUCTION IV: PRODUCTION INDUSTRY

In this course, students will further develop the skills practiced in Video Production III. Emphasis will be placed on high quality work that can be used in the industry using Hi-Definition technology. Students will take a leadership role in the production of programming for the school and local community. At least 50% of student work will be produced for Panther Media (the school district) or WMCT (Marlborough Community Television). Students will also produce advanced individual or small group projects of personal interest. Emphasis will be placed on high technical quality, professionalism, and the ability to create media that effectively communicates a message to an audience. After school hours may be required for certain projects.

PREREQUISITE: Video Production III and instructor approval.

Semester course: 2 Credits

VIDEO PRODUCTION V: INTERNSHIP

This course is designed for students who wish to progress beyond Video Production IV. Students will have the opportunity to intern in a professional setting and will gain direct

industry experience. Our partnership with WMCT (Marlborough Community Television) is a preferred choice for internship placement. However, students may also work directly with Panther Media or find a professional setting on their own, with approval from the instructor. This course is designed for highly motivated students. After school hours will be required for the majority of project work.

PREREQUISITE: Video Production IV and/or instructor approval.

Semester course: 2 Credits

Music

As one of the disciplines identified within the Massachusetts Common Core of Learning, the inclusion of the Fine and Performing Arts within the basic curriculum is essential.

Students at Marlborough High School have the opportunity to experience music through a comprehensive, sequential curriculum taught by music specialists. We believe that if they are to participate in a truly diverse, global society, students must receive a well-rounded education.

BAND FUNDAMENTALS

This course is open to all students in grades 9-12 who are interested in learning to play an instrument in band (flute, clarinet, oboe, saxophone, trumpet, trombone, or percussion). This class offers the band experience at the beginning level, with no experience necessary – only the will and desire to play an instrument. Students will learn the techniques of playing the instrument, music reading skills, and band fundamentals. All instruments will be provided by the Marlborough Public Schools. After completing the semester class, at the recommendation of the teacher, students will be encouraged to sign up for either concert band or wind ensemble.

Semester course: 2 Credits

9th GRADE STRING ENSEMBLE

This course is designed for students who have participated in a strings program at the middle school level or have some playing experience on a string instrument. The course continues to focus on growth and advancement in the areas such as playing technique, hand position, bowing styles, intonation, and ensemble performance. Participants will be expected to participate in all concerts, festivals, rehearsals, and community performances. After completing the semester class, at the recommendation of the teacher, students will be placed in Symphony Orchestra. The final instrumentation and roster personnel are at the sole discretion of the ensemble director and music department supervisor.

Semester course: 2 Credits

CONCERT BAND

This course is open to any interested student who desires to become proficient on a brass, woodwind, or percussion instrument. All participants will be expected to perform with the band at all rehearsals after school, parades, concerts, festivals, and halftime shows for all home football games. Course emphasizes on continuing to develop technique, performance skills, music reading skills, musicianship, and an appreciation for playing a variety of musical styles including standard wind literature in a large ensemble. The final instrumentation and roster personnel are at the sole discretion of the ensemble director and music department supervisor.

Full year course: 4 Credits

WIND ENSEMBLE

The members of the Wind Ensemble are selected by audition. The audition process will begin in May for selecting the instrumentation for the following year. The audition material for this select group may include some or all of the following: scales and arpeggios, chromatic scale over the working range of the instrument, any selection of music literature currently being studied, and sight reading. Students in this ensemble are expected to attend all rehearsals after school, parades, concerts, festivals, and halftime shows for all home football games. Performance repertoire will include masterworks for the wind band and advanced 20th century compositions. Emphasis is placed on independence of parts, technical proficiency, and musical interpretation. A minimum of one year's experience in Concert Band is strongly recommended. The final instrumentation and roster personnel are at the sole discretion of the ensemble director and music department supervisor.

PREREQUISITE: Audition required.

Full year course: 4 Credits

MIXED CHORUS

This course is open to any student who desires to become a proficient singer in a group setting. Through singing two, three and four-part harmony, students will learn more about breath support, diction, musical interpretation, harmony, blend and other elements of proper vocal technique. Members will sing music in a variety of styles, both accompanied and unaccompanied. Members will become familiar with reading music by using Kodaly hand symbols and the "moveable do" solfege system. Attendance at all concerts, rehearsals, festivals and community performances is expected. The final instrumentation and roster personnel are at the sole discretion of the ensemble director and the music department supervisor.

Full year course: 4 Credits

JAZZ ENSEMBLE

The members of this ensemble are selected by audition. The audition process will begin in May for selecting instrumentation for the following year. This group is designed for students with sufficient musical skill who would like to develop an understanding of and ability to perform music of various jazz style with specific instrumentation. The group will be limited to saxophones, trumpets, trombones, keyboard players, percussionists, bass, and guitar. Music selected will include rock, soul, jazz, swing, and standards. Students in this ensemble are expected to attend all rehearsals, concerts, festivals and community performances. The final instrumentation and roster personnel are at the sole discretion of the ensemble director and music department supervisor.

PREREQUISITE: Audition required.

Full year course: 4 Credits

MUSIC PRODUCTION I

This course is designed for the beginner, intermediate or advanced student of music who is interested in learning the basics of digital audio production in a collaborative lab setting. Using GarageBand, students learn to record, arrange and produce their own music through

a variety of project based tasks that will deepen their understanding of music theory, song structure and genre. This course will offer exposure to new vocabulary and an opportunity to listen to and review a variety of full length albums chosen by their classmates.

Semester course: 2 Credits

MUSIC PRODUCTION II

This course is designed for the intermediate or advanced student of music who is interested in expanding on the knowledge they acquired in Music Production. Using GarageBand, ProTools, Melodyne and a variety of plugins, students will record, arrange and produce their own music through a variety of project based tasks that will explore advanced studio production skills. This course will offer exposure to new vocabulary and an opportunity to listen to and review a variety of "classic" full length albums chosen by their instructor.

PREREQUISITE: Music Production or recommendation from the Music Production teacher.

Semester course: 2 Credits

PIANO WORKSHOP

Piano Workshop is a semester course offered for students in grades 9-12. The course is a performance based class for students with little or no piano playing experience or for advanced students. It is designed to introduce the fundamentals of music through piano playing and the opportunity to develop basic guitar playing skills or to improve/expand existing skills. Students will learn how to read music notes and rhythms, learn common musical terms and symbols, and learn to play basic piano chords and chord progressions. Various types of piano music will be played while learning how to play piano using chords and melody.

Semester course: 2 Credits

GUITAR WORKSHOP

Guitar Workshop is a semester course offered for students in grades 9-12. The course is a performance based class for students with little or no guitar playing experience or for advanced students. It is designed to introduce the fundamentals of music through guitar playing and the experience and opportunity to develop basic guitar playing skills or to improve/expand existing skills. Students will learn how to read music notes, rhythms, guitar tabs, and chords, as well as learning common musical terms and symbols. Emphasis will also focus on learning fingerstyle playing and basic strumming techniques while performing a variety of different song styles as a soloist, with a partner, and as an ensemble.

Semester course: 2 Credits

ADVANCED PLACEMENT MUSIC THEORY

This course is designed for the serious music student who wishes to complete music studies comparable to a first-year college course in music theory. The ultimate goal of an AP Music Theory course is to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. Working towards this goal, music skills which include aural recognition, sight-singing, composition and analysis are developed through a series of exercises such as listening, performance,

four-part writing, harmonization, music dictation, and music analysis. The development of aural skills is a primary objective. A software program accompanies the main text so that students may work independently for additional training and reinforcement. Students are required to take the AP Music Theory exam in May. Recommended for those intending to major in music in college. **PREREQUISITE:** Successful completion of summer theory assignment and basic performance skills in voice or on an instrument. Fundamentals of Musicianship course recommended.

Full year course: 4 Credits

SYMPHONY ORCHESTRA (formerly STRING ENSEMBLE)

Symphony Orchestra is a whole year course that is open to students in grades 10-12 who have experience in playing a string instrument. Students continue to develop advanced individual and ensemble skills and gain an appreciation for playing a variety of musical styles including standard orchestral music in a large ensemble. Symphony Orchestra performs several concerts throughout the school year. All participants will be expected to participate in all concerts, festivals, rehearsals, and community performances. The final instrumentation and roster personnel are at the sole discretion of the ensemble director and the supervisor of music. **PREREQUISITE:** have participated in String Ensemble or 9th Grade String Ensemble.

Full year course: 4 Credits

A CAPPELLA CHOIR/SIGHT-SINGING

The members of this ensemble are selected by audition in May for admission into the following year's ensemble. The audition material may include some of all of the following: scales and arpeggios, tonal recall, a prepared classical solo and sight-reading. This course is designed for the experienced singer who wishes to explore a variety of musical literature from a wide range of time periods, cultures and languages. The music is most often performed with little to no accompaniment, thus developing the student's musical ear and strengthening harmonic singing. Through singing two, three and four-part harmony, students will learn more about breath support, diction, musical interpretation, harmony, blend and other elements of proper vocal technique. Emphasis will be placed on the development of sight-singing skills using Kodaly hand symbols and the "moveable do" solfege system. The final instrumentation and roster personnel are at the sole discretion of the ensemble director and the music department supervisor.

PREREQUISITE: Audition required.

Full year course: 4 Credits

LEARN TO JAM

This is a class for beginning, intermediate, and advanced musicians. In this class, students will learn how to play multiple instruments. Students will learn the fundamentals of music through performing with others. Units will include: "Four-Chord Songs", Bucket Drumming, Boom-Whacker Band, and Rock/Pop Covers. Students should expect high energy instruction in a very positive and safe environment.

Semester course: 2 Credits

TOPICS IN MUSIC & POP CULTURE

This course is for students who are interested in music but are not interested in playing an instrument or singing. Topics range from “Music in Movies and Video Games” to “Racism and Inequity in Music” to “Music in Popular Media”. Weeks of teacher instruction will be offset with weeks of individual and group project work that will include basic topic research, listening activities and music creation on platforms like Garageband and Bandlab.

Semester course: 2 Credits

Wellness

The K-12 Wellness Department's vision is to empower our students to be knowledgeable, resourceful and respectful participants in the lifelong pursuit of healthy behaviors and lifestyles. Wellness refers to the dynamic process that connects all aspects of an individual's physical, mental/emotional, and social well-being. As such, the curriculum for each course is aligned with elements of the Massachusetts Comprehensive Health Frameworks as well as the SHAPE America National Physical Education Standards and National Health Education Standards.

To meet MHS Graduation requirements and the legal requirements articulated by the Commonwealth of Massachusetts (M.G.L. Ch. 71, Sect. 3), students are required to take a semester of Wellness each year at each grade level. The recommended course selections by grade level are as follows:

WELLNESS 9

Students in grade 9 will focus on improving their personal fitness and interpersonal skills through a three tiered approach. A team building and problem solving activity curriculum, a physical activity curriculum and multiple units from our health Health curriculum. Students will investigate nutrition and eating habits in order to set goals for self-improvement. Students will examine the dangers of E-cigarettes and vaping, as well as stress management.

Semester course: 2 Credits

WELLNESS 10

Students in grade 10 will work on fostering the relationship of physical and personal wellness in order to pursue a balanced and healthy lifestyle, while again using a three tiered approach.. There is a strong focus on the six high-risk factors facing teenagers through the following curriculum units: Dimensions of Wellness, Fitness and Exercise, Disease Prevention, , Yoga and Mindfulness, Anti-Bullying, Lifetime, Team, and Recreational Activities, Alcohol, Tobacco and Other Drugs use and abuse, Sexuality/Reproduction, and other supplementary Physical Education, Health, and Wellness lessons.

Semester course: 2 Credits

PROJECT ADVENTURE

Students in grade 11 and/or 12 will participate in an adventure-based curriculum through the Project Adventure model. The major themes at the high school level are leadership, creativity, and risk-taking. The major units of study include: team building, problem solving, low elements, high elements, fitness testing, and other outdoor pursuits. The health concepts outlined in the National Health Education Standards are integrated into each unit of the course and include: interpersonal skills, decision-making, goal-setting, and practicing health-enhancing activities.

Semester course: 2 Credits

FITNESS FOR LIFE

Students in grades 11 and/or 12 will be exposed to a wide variety of fitness activities and stress management skills to promote physical, mental, and spiritual wellness. Students will participate in the following fitness and wellness lessons covering: Pilates, yoga, group exercise classes

(Insanity, P90X), functional training (using kettlebells, medicine balls, stability balls, jump ropes, warrior ropes, free weights, nautilus machines, and cardio machines), nutrition tips and plans, mindfulness and stress management skills and techniques.

Semester course: 2 Credits

LIFETIME AND TEAM ACTIVITIES

Students in grade 11 and/or 12 will participate in a variety of lifetime and team activities that promote fitness and skills, help reduce stress, and improve overall wellness. The course is designed to enhance the students' knowledge and skills in a variety of activities for present and future participation. Students will increase their awareness of the benefits of physical activity and fitness through understanding how the body functions. By identifying and experiencing the relationship of exercise to overall health, applying important social skills and safety in physical activity, integrating learning movement with other modes of learning, and practicing strategies to respond to stress, students can enhance their overall health and wellness.

Semester course: 2 Credits

ADAPTIVE PHYSICAL EDUCATION

Adapted physical education is offered for students with a disability. The instructor provides the learners with the skills necessary for lifetime activities, fitness, and recreational and sport experiences to enhance physical fitness and wellness.

Semester course: 2 Credits

HEALTH ISSUES: REALITY CHECK

Students in grade 11 and/or 12 will be exposed to a range of current health, fitness, and wellness topics. The focus is on students making proud and safe decisions, avoiding peer pressure, and participating in healthy lifelong activities. The course will be representative to changing times, current events, and developing concerns relevant to adolescent development, wellness, lifelong fitness and physical activity, health, and safety. A parent/guardian permission slip will be required in the course due to the sensitivity of some of the subject matter.

Semester course: 2 Credits

FUNDAMENTALS OF COOKING

This course covers the foundations of safe and healthy cooking. Students will learn about food safety, food preparation, measurement and nutrition so that they can work towards independence, lifelong healthy living and possible careers in the culinary arts. In the Food Safety unit, students will receive training on safe food handling and preparation practices in order to prevent foodborne illness. In the second unit, Food Preparation & Measurement, students develop their ability to safely and efficiently use a chef's knife. In addition, they will become proficient in utilizing volume and weight measurement tools. The final unit, Nutrition, focuses on the basics of nutritional science including calories, macronutrients, micronutrients, supplements and behavioral & lifestyle variables (e.g. adherence).

Semester course: 2 credits

COOKING METHODS

This course provides advanced culinary students with an overview of essential cooking methods utilized both at home and in the field of Culinary Arts. These methods include: Pan Frying, Searing, Sautéing, Grilling, Broiling, Roasting, Baking, Steaming, Boiling, Simmering, and Poaching. The main goal of this course is to prepare students with the knowledge and skills required to consistently execute all the aforementioned cooking methods which will prepare them for work in a variety of culinary settings.

Semester course: 2 credits

Pre-requisites: Fundamentals of Cooking

English Learner Education

The English Learner Education (ELE) program at Marlborough High School allows students who are in the process of acquiring social and academic English to participate in a program model that supports both their English language development and content knowledge development. This model is called Sheltered English Instruction (SEI). Each year, English language proficiency is assessed and academic success is reviewed in order to recommend appropriate placement in English Language Development (ELD) and Sheltered Content Instruction (SCI) classes. ELD classes are taught by EL teachers, and content instruction is delivered by teachers who hold certification in the different content areas, the SEI Endorsement and, at times, co-taught with an EL teacher.

The World Class Instructional Design and Assessment (WIDA) English Language Development Standards serve as a basis for curriculum and instruction for EL students. English Language Development courses and electives are organized around four language domains identified in this document: listening, speaking, reading, and writing.

ENGLISH LANGUAGE DEVELOPMENT

INTRODUCTORY ENGLISH LANGUAGE DEVELOPMENT 1

This course meets daily for 2 periods and is designed for students with little or no English proficiency and limited or interrupted formal schooling. This course familiarizes students with all aspects of school, and developing good study habits and skills. EL students at this level follow a curriculum that includes listening, speaking, reading, and writing as outlined in the WIDA English Language Development Standards. Basic interpersonal communicative skills in English are emphasized, while simultaneously introducing cognitive academic language proficiency skills. This course satisfies an English graduation requirement.

PREREQUISITE: A score of a 1 on the WIDA Screener and limited or interrupted formal schooling.

Full year course - Two full periods: 8 Credits

ENGLISH LANGUAGE DEVELOPMENT 1 (LEVEL 1)

This course meets daily for two periods and is designed for students with little or no English proficiency. In addition to being an orientation program to familiarize students with all aspects of the school, EL students at this level follow a curriculum that includes listening, speaking, reading, and writing as outlined in the WIDA English Language Development Standards. Basic interpersonal communicative skills in English are emphasized, while simultaneously introducing cognitive academic language proficiency skills. This course satisfies an English graduation requirement.

PREREQUISITE: English language proficiency level 1.

Full year course - Two full periods: 8 Credits

ENGLISH LANGUAGE DEVELOPMENT 2 (LEVEL 2)

This course meets daily for two periods and is designed for students with emerging English proficiency. EL students at this level follow a curriculum that includes listening, speaking, reading, and writing as outlined in the WIDA English Language Development Standards. Basic interpersonal communicative skills in English are emphasized, while simultaneously introducing cognitive academic language proficiency skills. This course satisfies an English graduation requirement.

PREREQUISITE: English language proficiency level 2 and completion of English Language Development 1.

Full year course - Two full periods: 8 Credits

ENGLISH LANGUAGE DEVELOPMENT 3 (LEVEL 3)

This course meets daily for one period and is designed for students with developing English proficiency. EL students at this level follow a curriculum that includes listening, speaking, reading, and writing as outlined in the WIDA English Language Development Standards. Cognitive academic language proficiency skills in English are emphasized. Students are expected to handle increasingly complex reading materials and academic tasks.

PREREQUISITE: English language proficiency level 3 and completion of English Language Development 2.

Full year course: 4 Credits

ENGLISH LANGUAGE DEVELOPMENT 4/5 (LEVELS 4/5)

This course meets daily for one period and is designed for students with expanding English proficiency. EL students at this level follow a curriculum that includes listening, speaking, reading, and writing as outlined in the WIDA English Language Development Standards. This course is designed for students who have mastered social language, but are focusing on complex academic language and are near exiting the EL program. Critical thinking skills, process writing, interactive learning, and participation in oral discussions are stressed.

PREREQUISITE: English language proficiency level 4 or 5 and completion of English Language Development Level 3.

Full year course: 4 Credits

INTENSIVE ENGLISH LANGUAGE DEVELOPMENT (LEVELS 1/2)

This course meets daily for two periods and is designed for students who have passed their ELD 1 or 2 class, but do not meet the English Proficiency requirements for the next level. EL students in this class follow a curriculum that includes listening, speaking, reading, and writing as outlined in the WIDA English Language Development Standards. Basic interpersonal communicative skills in English are emphasized, while simultaneously introducing cognitive academic language proficiency skills. This course satisfies an English graduation requirement.

PREREQUISITE: By EL Coordinator recommendation only

Full year course - Two full periods: 8 Credits

INTENSIVE ENGLISH LANGUAGE DEVELOPMENT (LEVELS 3/4)

This course meets daily for one period and is designed for students who have passed their ELD 3 OR 4 class, but do not meet the English Proficiency requirements for the next level. EL students in this class follow a curriculum that includes listening, speaking, reading, and writing as outlined in the WIDA English Language Development Standards. Cognitive academic language proficiency skills in English are emphasized. Students are expected to handle increasingly complex reading materials and academic tasks.

PREREQUISITE: By EL Coordinator recommendation only

Full year course: 4 Credits

MATH FOR ENGLISH LEARNERS

SEI COLLEGE PREP FUNDAMENTALS OF ALGEBRA A

This course is designed for students with little or no English proficiency and limited or interrupted formal schooling. It provides students with the necessary foundational skills to be successful in Algebra. Students explore the real number system and the language of Algebra. An emphasis is placed on the continued study of place value, integers, fractions, decimals, order of operations, proportional relationships, variables, expressions, equations, and basic geometry concepts. There is a focus on developing students' language of math while learning these concepts.

PREREQUISITE: A pretest indicating Math level, English language proficiency level 1, and limited or interrupted formal education.

Full year course: 4 Credits

SEI COLLEGE PREP FUNDAMENTALS OF ALGEBRA B

This course provides EL students with the necessary foundational skills to be successful in Algebra. Students explore the real number system and the language of Algebra. An emphasis is placed on the continued study of place value, integers, fractions, decimals, order of operations, proportional relationships, variables, expressions, equations, and basic geometry concepts. There is a focus on developing students' language of math while learning these concepts.

PREREQUISITE: A pretest indicating Math level and English language proficiency level 1 or 2.

Full year course: 4 Credits

SEI INTEGRATED MATH 1

This course provides a deep understanding of concepts from Algebra 1 along with application of geometric theorems and ideas. Students will study algebraic topics such as equations/inequalities, functions/graphs, linear functions, systems of equations, and statistics. Among the geometric topics studied are points, lines, and planes; triangles, polygons, and circles; angles and parallel and perpendicular lines. Students also study surface area, and volume. Additional topics may be added as needed to help students prepare for the yearly MCAS test. There is a focus on developing students' language of math while learning these concepts.

Full Year Course: 4 Credits

SEI INTEGRATED MATH 2

This course provides a continued deep understanding of concepts from Algebra 1 along with application of geometric theorems and ideas. It is intended for students who have successfully completed SEI Integrated Math 1. Students will study algebraic topics such as polynomials, quadratic functions, exponential functions, absolute value functions, and probability. Among the geometric topics studied are right triangles, trigonometry, similarity, and 3d measurement. Additional topics may be added as needed to help students prepare for the yearly MCAS test. There is a focus on developing students' language of math while learning these concepts.

Full Year Course: 4 Credits

SEI MATH SUPPORT

This course is intended to assist students who are struggling with foundational skills. The course will offer tutorial support, basic skills review and development, pre-teaching of new concepts along with re-teaching those concepts which students still struggle with. The course is intended to increase students' understanding and comfort level with key algebraic concepts by reviewing regularly throughout the year. SEI Math Support will be taught in partnership with an SEI Math course.

PREREQUISITE: Student must be enrolled in SEI Integrated Math 1 or 2

Semester Course: 2 Credits

HISTORY AND SOCIAL SCIENCES FOR ENGLISH LEARNERS

FUNDAMENTALS OF CIVICS A

This course is designed to introduce EL students with limited or interrupted formal schooling to the framework of American democracy and the basic concepts of American government while taking into consideration the language of social studies and developing students in the area of civic literacy. EL students continue working on listening, speaking, reading, and writing as they learn English through content.

PREREQUISITE: English language proficiency level 1 and limited or interrupted formal education.

Full year course: 4 Credits

FUNDAMENTALS OF CIVICS B

This course is designed to introduce EL students to the framework of American democracy and the basic concepts of American government while taking into consideration the language of social studies and developing students in the area of civic literacy. EL students continue working on listening, speaking, reading, and writing as they learn English through content.

PREREQUISITE: English language proficiency level 1.

Full year course: 4 Credits

SEI COLLEGE PREP WORLD HISTORY

Through sheltered English instruction techniques, students study the rise of the nation state in Europe, the French Revolution, and the economic and political roots of the modern world. They study the origins and consequences of the Industrial Revolution, 19th century political reform in Western Europe, and imperialism in Africa, Asia, and South America. They explain the causes and consequences of the great military and economic events of the past century, including WWI, the Great Depression, WWII, the Cold War, and the Russian and Chinese revolutions. Finally, students study the rise of nationalism and the continuing persistence of political, ethnic and religious conflict in many parts of the world.

PREREQUISITE: English language proficiency level 2.

Full year course: 4 Credits

SEI COLLEGE PREP UNITED STATES HISTORY I

Through sheltered English instruction techniques, students build upon their foundation of civic literacy. Students study the establishment of political parties, economic & social reforms, and westward expansion. Students also learn about the growth of sectional conflict, how sectional conflict led to the Civil War, the consequences of the Civil War, Reconstruction, and the growth of big business. Throughout the first semester, students examine the historical and intellectual origins of the United States. They learn about the important political and economic factors that contributed to the outbreak of the Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. Students also study the basic framework of American democracy and the basic concepts of American government such as popular sovereignty, federalism, separation of powers, and individual rights. Students study the three branches of government, key amendments to the US Constitution, and state/local government. In addition, students examine specific elections both current and historical. In addition, Massachusetts history and American culture and civics are integrated into the curriculum.

PREREQUISITE: English language proficiency level 2.

Full year course: 4 Credits

SCIENCE FOR ENGLISH LEARNERS

FUNDAMENTALS OF BIOLOGY A

This course is designed for students with little or no English proficiency and limited or interrupted formal schooling. It is designed to strengthen students' competence in science while taking into consideration the language of science and developing students in that area. This course also further prepares students for the Biology MCAS by including the specific topics of cell biology, genetics, anatomy and physiology, evolution and ecology.

PREREQUISITE: English language proficiency level 1 and limited or interrupted formal schooling.

Full year course: 4 Credits

FUNDAMENTALS OF BIOLOGY B

This course is designed to strengthen students' competence in science while taking into consideration the language of science and developing students in that area. This course will also further prepare them for the Biology MCAS by including the specific topics of cell biology, genetics, anatomy and physiology, evolution and ecology.

PREREQUISITE: English language proficiency level 1.

Full year course: 4 Credits

SEI COLLEGE PREP BIOLOGY

Through sheltered English instruction techniques, students are exposed to and participate in the specific topics of the chemistry of life, cell biology, genetics, anatomy and physiology, evolution, biodiversity, and ecology. Other topics, such as biotechnology, are covered during the year. The format of the course includes lecture, laboratory, discussion, reading, writing, and other methodologies. This course prepares students to successfully pass the Biology MCAS test.

PREREQUISITE: English language proficiency level 2.

Full year course: 4 Credits

SEI COLLEGE PREP PHYSICS

Through sheltered English instruction techniques, students study the fundamental laws of physics occurring in the world around them, stressing both conceptual and mathematical interpretations. Students study motion and its causes and effects in units focused on velocity, acceleration, force, work, power, and energy. The study of energy expands into a unit on mechanical and electromagnetic waves. This is followed by the study of static electricity, current electricity, and magnetism. Skills focus on laboratory procedure, algebraic manipulations, graphical interpretations, and project based learning. This course prepares students to successfully pass the Physics MCAS test.

PREREQUISITE: English language proficiency level 2.

Full year course: 4 Credits

WORLD AND CLASSICAL LANGUAGES FOR ENGLISH LEARNERS

LATIN AS A BRIDGE

This class is designed for English learners who wish to further expand their acquisition of English vocabulary and grammar. The class focuses on the commonalities between Latin, English, and the Romance languages and uses these to reinforce the structure of the English language. This course supports students as they prepare for the English Language Arts MCAS.

Full year course: 4 Credits

Special Education Programming

The Special Education Department at Marlborough High School is committed to preparing all students to be career- and/or college-ready, by providing them with opportunities to participate in a high quality education in the Least Restrictive Educational Environment, by supporting them to meet their individual goals, and by allowing them to access the curriculum through a variety of entry points designed to meet individual needs. We will promote the learning and growth of all students through instructional practices that establish high expectations, create a safe and effective classroom environment, and meet a broad range of learning needs.

Program Descriptions in this manual include the specialized programs available at Marlborough High School. Students may receive services in one program or a combination of programs based on individual student needs.

SUB-SEPARATE OFFERINGS

The Pathways Program

The goal of the Pathways Program is to meet the individualized needs of students with a disability of Autism Spectrum Disorder (ASD) and/or related developmental disabilities. This may include students with intellectual impairments who would benefit from Applied Behavior Analysis (ABA) Methodologies. Students in the Pathways Program require specialized instruction to access Common Core Standards entry points and access skills. An ABA methodology is utilized to introduce these skills. This methodology teaches functional academic, social, communication, motor, independent living, and pre-vocational skills. Behavioral plans are also put in place to reduce challenging behaviors and teach functional replacement behaviors. Skills are initially introduced in a 1:1 or small group format within a special education classroom, and then generalized to large groups, inclusion classroom, and community settings. A significant emphasis is placed on teaching all students (both vocal and non-vocal) to use their functional communication skills across all environments in lieu of engaging in challenging behaviors. Behavior plans are generally written and overseen by a Board Certified Behavior Analyst (BCBA), who then consistently reviews with Pathways classroom staff.

The Connections Program

The Connections Program is a structured, sub-separate program at Marlborough High School. Using Applied Behavior Analysis (ABA) and other evidence-based teaching strategies, students are taught functional academics and independent life skills. The curriculum is highly individualized and addresses Communication, Functional Academics, Social and Emotional Development, Motor Skills and Self-care Skills. Students work on counting money, calculating change, cooking/meal prep, laundry, and cleaning. Students volunteer at work sites within the community to enhance their social and vocational skills. Students' programs are individually designed and based on their needs. Students attend

electives and lunch in the general education setting. Students participate in the MCAS Alternative Assessment in tenth grade.

PARTIAL AND FULL INCLUSION OFFERINGS

Therapeutic Learning Center (TLC)

The goal of the Marlborough High School Therapeutic Learning Center (TLC) is to create a therapeutic and supportive learning environment that celebrates the unique strengths and talents of all students. Specific programmatic goals include improving coping/self-regulation skills, executive functioning skills, and self-determination. The goal of the Therapeutic Learning Center is to maximize academic performance. The program seeks to develop self-confidence in students as learners and to improve organizational and self-advocacy skills. The student's attendance and participation in the least restrictive setting is the primary focus. Assisting students in obtaining credits towards graduation is an overarching goal.

The Therapeutic Learning Center is an inclusion program. Students are supported through Academic Support by a Certified Special Education Teacher and/or Paraeducator. The students may receive direct services through counseling or through consultation with the team by the School Adjustment Counselor. Collaboration by the School Adjustment Counselor with the outside providers provides continuity for students. Additionally, a Board-Certified Behavior Analyst provides consultation to IEP teams as needed.

Students in this program typically have emotional disabilities, as defined by their Special Education team, and have experienced a variety of personal challenges which, at times, impact their school attendance, performance, or self-confidence as learners. Clinical manifestations of these emotional disabilities may include anxiety, obsessive-compulsive behaviors, depression, mood dysregulation, and moderately disruptive behaviors. (The program is not designed for students with more serious behaviors such as significant aggression, either physical or sexual, who may require a substantially separate setting). In many students with emotional disabilities, there may also be related neurological difficulties, such as attention deficit, hyperactivity disorders, and social skills deficits.

Academic Support

Academic Support is a full year credited course designed to assist students who have an Individualized Education Program (IEP) and have it as a service in their IEP. Students will receive assistance and support for assignments and assessments from their academics in two different ways. First, students will be provided with the opportunity to receive support for assignments from their academic classes. Additionally, students will participate in specially designed curriculum to provide personal awareness of their disability and contents of their IEP, and to learn strategies and skills that will help the student achieve their IEP goals. Lastly, students will utilize their academic support to attend related services.

Co-Taught Courses

Co-teaching involves two or more certified professionals who contract to share instructional responsibility for a single group of students primarily in a single classroom or workspace for specific content or objectives with mutual ownership, pooled resources and joint accountability. (Friend & Cook 2016)

Students at all academic levels benefit from alternative assignments and greater teacher attention in small-group activities that co-teaching makes possible. Co-teaching allows for more intense and individualized instruction in the general education setting increasing access to the general education curriculum while decreasing stigma for students with special needs. Students have an opportunity to increase their understanding and respect for students with special needs. Students with special needs have a greater opportunity for continuity of instruction as the teachers benefit from the professional support and exchange of teaching practices as they work collaboratively.

Six methods of co-teaching utilized within the co-taught classroom:

- One Teach, One Observe
- One Teach, One Assist
- Parallel Teaching
- Station Teaching
- Alternative Teaching
- Team Teaching

Essentials Courses

The goal of Essentials course offerings is to educate our students with significant cognitive impairments and adaptive skills (i.e., activities of daily living, social communication, etc.) deficits seen at school and home. The students educated in Essentials courses require significant modifications to the grade-level curriculum taught in a small group setting with a low student to teacher ratio. Typically, the students learn the essential concepts of the grade-level curriculum. The students in Essentials courses require multiple opportunities for review, repetition, and clarification of the essential skills taught. Student disability and level of need determine the number of Essential courses that a student may require.

POST GRADE 12 OFFERINGS

Learning in Functional Environments Program (L.I.F.E.)

The Learning in Functional Environments Program is a transition program for students ages 18-22 with disabilities who have not received a regular high school diploma. The L.I.F.E. Program provides education and training in the areas of Independent living, Functional Academics, Social Communication, and vocational skills with access to community based internships and hands-on learning experiences. The L.I.F.E. Program strives to assist students with developing self-advocacy skills, equipping students with job skills for future employment, and improving their social skills. The L.I.F.E. Program is tailored to meet a student's individual strengths, preferences, and interest areas. The L.I.F.E. Program works in collaboration with adult agencies, such as the Massachusetts Rehabilitation Commission

(MRC) and the Department of Developmental Services (DDS), to provide wraparound services to transition the student when the individual turns 22 and ages out of the public school system.

Program descriptions can be altered at anytime, given the needs of the students. The progress of all students with disabilities is carefully monitored. As students gain skills and demonstrate success, their Individual Educational Programs are adjusted accordingly. Instruction in the least restrictive educational setting in which the student makes effective progress is the ultimate goal. In the case where a student is not making effective progress within a particular program and/or delivery of a service, the team will reconvene to discuss program options and/or re-evaluate the student's skills and needs.

Library Media Center

LIBRARY RESEARCH SKILLS (Honors)

During this one semester course, students will focus on both the concepts and skills needed to conduct library research with an emphasis on electronic information sources such as databases and eBooks. The purpose of the course is to prepare students for higher education by providing students with a basic understanding of the library research process and the skills by which they can successfully find information for research, presentations, and other class assignments.

PREREQUISITE: Successful completion of 9th & 10th Grade English

Semester course: 2 Credits

INTRODUCTION TO MAKERSPACE

During this one semester course, students will work in a collaborative learning environment where they will come together to share materials and learn new skills. Students will celebrate the process of design and making, which includes overcoming challenges, so that they start to believe they can solve any problem. Students will gather to create, invent, tinker, explore and discover using a variety of tools and materials such as craft and recycled materials, electronic kits, building sets (such as Legos and K'nex), robotics, and the Cricut cutting machine. Through this hands-on learning students will be better prepared to work in a collaborative working environment. Students will also have knowledge of working with some machines and basic coding.

Semester course: 2 Credits

Virtual High School

Virtual High School (VHS) is a nation-wide cooperative project, originally funded by a Technology Challenge Grant from the US Department of Education. Marlborough High School is one of the five original Massachusetts high schools that instituted this opportunity for students. Through participation in the Virtual High School, students acquire the skills needed to succeed in an increasingly technological world.

Online learning through VHS helps students master course content, as well as develop communication, collaboration, and creative problem solving skills. The majority of VHS courses are one semester (half year). There are approximately 150 course offerings throughout all disciplines.

Most VHS courses are at the honors or Advanced Placement (AP) level. Students enrolled in VHS should be highly motivated to work independently. Therefore, students must have a strong teacher or guidance counselor recommendation to participate in VHS.

A complete catalog of courses and their prerequisites is available on the VHS website (<http://thevhscollaborative.org/>).