



# PROGRAM

Of Studies 2023-2024

# M

INDEPENDENT  
LIFE LONG  
LEARNERS

CITIZEN  
SHIP

RESPECT AND  
RESPONSIBILITY

ACADEMIC  
CURIOSITY  
AND GROWTH





**Program by Zoe Avramidis, Class of 2026**

**TABLE OF CONTENTS**

Principal’s Message ..... pg. 4  
Millbury Staff Listing..... pg. 5  
Core Values and Beliefs..... pg. 6  
Learning Expectations, System Wide Mission Statement..... pg. 7  
Millbury Public Schools Statement of Non-Discrimination..... pg. 7  
Statement of Accreditation..... pg. 7  
Chapter 622/Title IX..... pg. 7  
MassCore..... pg. 8  
Millbury Graduation Requirements..... pg. 9  
Course Credit Values..... pg. 9  
Minimum Graduation Requirements..... pg. 9  
Credits for Promotions..... pg. 10  
Education Proficiency Plan..... pg. 10  
Academic Program Levels..... pgs. 10-11  
Millbury’s AP Program..... pgs. 12-13  
Request to Change Classes..... pgs. 12-13  
Massachusetts Insight Education..... pg. 13  
Minimum Grade Point Average (G.P.A) ..... pgs. 13 -14  
GPA, Class Rank, Weighted Factors..... pgs. 14-15  
MASS Board of Higher Education College Admission Standards..... pgs. 15-16  
Guidance & Counseling Department..... pg. 17  
Special Education Services..... pg. 18  
Articulation Agreements..... pg. 18  
Summer School General Information..... pg. 18  
Seal of Bi-Literacy..... pg. 18  
Home Language Translation Services..... pg. 19  
Early College Access/ACE Program..... pgs. 19-20

Department Course Information:

    Business..... pg. 21  
    English..... pg. 28  
    Fine Arts..... pg. 34  
    Math..... pg. 40



Science and Engineering.....	pg. 45
Social Studies.....	pg. 49
Wellness, PE, and Family Consumer Science.....	pg. 54
World Language.....	pg. 58
Innovative Pathways.....	pgs. 63-70
Carpenter's Union .....	pg. 71
Additional Offerings .....	pg. 67
On-Line Learning (VHS) .....	pgs. 72-74
MEFA Pathways.....	p.75
Student Course Selection Sheets.....	pgs. 76-79

**If you need this program of studies in another language, please use the links below:**

**[Se você precisar deste programa de estudos em outro idioma, use os links abaixo](#)**

**[Si necesita este programa de estudios en otro idioma, utilice los siguientes enlaces:](#)**

**[إذا كنت بحاجة إلى برنامج الدراسة هذا بلغة أخرى ، فيرجى استخدام الروابط أدناه](#)**



## PRINCIPAL'S MESSAGE

January 2023

Dear Students and Parents/Guardians,

The Program of Studies is an essential resource in helping students to find the best educational pathway possible – one which challenges, inspires, and prepares them for life outside of Millbury Memorial Junior/Senior High School (MMJSHS). MMJSHS prides itself on providing students with an incredible opportunity to reach their full potential in an environment that promotes and celebrates inclusivity, creativity, and taking ownership of their learning opportunities. Students are afforded a variety of ways to grow academically, civically, socially, and emotionally. We as a school are committed to our Core Values and Beliefs about Learning and are confident that these characteristics will help build a community of students that are life-long learners who also actively participate in their community. The Program of Studies includes our Core Values & Beliefs, student learning expectations, curriculum, and programs. Our administration, guidance department and teachers have assisted in the creation of the Program of Studies, as well as participated in the decision-making process related to our school curriculum.

The faculty and administration at MMJSHS are committed to providing our students with quality instruction that is standards-based, rigorous, and rooted in our Core Values and Beliefs about learning. It is imperative to us, as a school community, that we provide our students with the best possible course offerings while maintaining a positive learning community. As a staff, we are excited on a daily basis to support our students and help guide them through their high school experience, but it is important that students realize that they must bring an open mind and a desire to learn and grow. Each and every course that we offer at MMJSHS will have activities that challenge and engage students, as well as experiences that foster life-long learning. Our faculty and staff have established challenging goals for all students at MMJSHS and we firmly believe that our student body will rise to meet these high expectations. Students must be prepared to participate and actively learn every day, in every class.

In addition to our academic opportunities, MMJSHS has an incredible amount of co-curricular offerings, such as student clubs/organizations, athletics, and performing arts. We encourage our students to get involved and stay involved. Educational research supports the positive effects of student involvement in co-curricular activities and the impact on their overall experience. In addition to the positive relationships and mentor opportunities that can be formed during these co-curricular experiences, students have numerous academic, civic, social, and emotional support systems available to them as they go through their high school experience. These systems include the support of guidance counselors and teachers, clinical support staff, individualized programming needs for students, teacher help sessions, and extended after-school hours.

In closing, MMJSHS offers an extensive array of academic and co-curricular choices for our students. We encourage students and their families to take the appropriate time and consideration in choosing courses that are aligned with each student's strengths and educational goals. We look forward to working collaboratively with families in order to support each and every student in developing an inspiring and fulfilling course of study throughout their years at MMJSHS. Please do not hesitate to reach out if you have any questions or concerns. We wish everyone great success in the upcoming school year and hope that all students will take full advantage of our school's extraordinary opportunities.

Sincerely,  
Christopher Lowe  
Principal, Millbury Junior/Senior High School



## MILLBURY STAFF LISTING

### Administrators

Mr. Christopher Lowe	Principal
Ms. Abigail Rigney	HS Assistant Principal
Mr. Patrick Mara	JR HS Assistant Principal

### School Counselors

Ms. Ashlee Cabral	School/ Adjustment Counselor
Ms. Mary Ellen Courtney	School Counselor
Ms. Stephanie DeLucia	School Counselor/Dept. Director
Mrs. Heidi Desautels	School/Adjustment Counselor
Ms. Taryn Holman	School/Adjustment Counselor
Ms. Ann Meservey	School Counselor
Mr. Joshua MacCreery	Athletic Director/School to Career
Mr. Kiel Storm	School Psychologist

### Department Instructional Leaders

Mr. Jonathan Cunha	Business/Fine Arts
Mrs. Kayla Barbosa	English
Mrs. Kim Pine	Math
Ms. Joanna Morin	PE, Health, & Wellness
Mrs. Maryann DeMaria	Science & Data Coach/Specialist
Mr. Sal Palano	Social Studies
Mrs. Christine Warren	Special Education
Mrs. Rebecca Cunha	World Language
Mrs. Rose Flaherty	Media Specialist
Mrs. Sarah Comeau	Data Coach/Specialist



---

**MILLBURY MEMORIAL JUNIOR/SENIOR HIGH SCHOOL**  
**CORE VALUES & BELIEFS**

---

We believe that **ACADEMIC CURIOSITY & GROWTH** are achieved by connecting classroom learning to the world in which students live. We believe students' active engagement in their learning will foster a desire to continue to explore, investigate, and think critically about what they have learned and how it impacts the attainment of their future goals.

We believe that **CITIZENSHIP** is exemplified by having an awareness of the global world and a sense of one's role as a world citizen. One who embodies **CITIZENSHIP** demonstrates a respect for and values differing opinions and diversity; acts with honesty, integrity and empathy, and participates in the community in a positive and impactful way.

We believe that **INDEPENDENT, LIFELONG LEARNERS** demonstrate the curiosity, ownership and resourcefulness to uncover problems and articulate them in such a way that solutions can be found and shared.

We believe that **RESPECT & RESPONSIBILITY** are fostered through a mutual effort of support by students, staff, parents/guardians, and community members. We believe in the importance of people taking responsibility for their actions and respecting the opinions of others, even when we disagree. We believe that a caring, trusting, and giving environment is the foundation for building **RESPECT & RESPONSIBILITY**.

We believe students acquire knowledge, skills, and habits of mind during their secondary school years to help prepare them for the modern workplace. We encourage students to connect authentic learning experiences with academics in order to support their transition into life after Millbury High School. We believe that the skills of communicating effectively, collaborating with purpose, and thinking creatively and critically are a significant part of a student's ability to contribute to society.





---

## **21<sup>ST</sup> CENTURY LEARNING EXPECTATIONS**

---

### **Academic**

- Employ critical thinking skills to problem solve- Assessment
  - Communicate effectively across the spectrum of manner and audience- Curriculum
  - Demonstrate motivation and resiliency- Instruction

### **Civic**

- Community Involvement - Standard 7- Community resources
- Display Integrity - Standard 1 Core Values and Beliefs

### **Social**

- Collaborate with purpose- School Resources
- Exhibit adaptability and tolerance- School Culture and Leadership

### **DISTRICT WIDE MISSION STATEMENT**

The mission of the Millbury Public Schools is to provide a school climate that accepts all students of varying abilities and interests and provides them with a wide variety of learning experiences so that they will have the essential skills and abilities to be lifelong learners and contributors to improving the quality of life for themselves and future generations.

### **MILLBURY PUBLIC SCHOOLS STATEMENT OF NON-DISCRIMINATION**

The Millbury Public Schools is an Equal Opportunity Employer and Educator who fully and actively supports equal access for all people regardless of Race, Color, Religion, Gender, Sexual Orientation, Age, National Origin, Veteran Status, Disability, Gender Identity or Genetic Information. Additionally, we prohibit Retaliation against individuals who oppose such discrimination and harassment or who participate in an equal opportunity investigation.

### **STATEMENT OF ACCREDITATION**

Millbury Jr. / Sr. High School is an accredited member of the New England Association of Schools and Colleges. This association is the significant school-accrediting agency in the New England states.

### **CHAPTER 622/TITLE IX**

In compliance with Chapter 622 and Title IX, the Millbury Public Schools follows the law that reads: No person shall be excluded from or discriminated against in admission to a public school of any town or in



obtaining the advantages, privileges and course of study to such public school on account of race, color, sex, sexual identity, religion, or national origin of such child.

### MassCore

What is MassCore?

MassCore is a state recommended, rigorous program of study geared to develop and prepare students for college and career options. The recommended program of studies includes:

Length	Subjects
4 years	English
4 years	Math
3 years	lab-based Science
3 years	History/Social Science
2 years	of the same World Language
1 year	Fine Arts
5 additional “core” courses	Career & technical education, or any other subject areas
As required by law	Physical Education (MGL c. 71, s. 3)
Additional learning opportunities	<ul style="list-style-type: none"> <li>• AP Classes</li> <li>• Dual Enrollment</li> <li>• Senior project/capstone coursework</li> <li>• Online courses for high school or college credit</li> <li>• Service or work-based learning</li> </ul>

To learn more about MassCore visit the Department of Education website at: <http://www.doe.mass.edu/ccr/masscore/>





## MILLBURY GRADUATION REQUIREMENTS

All Millbury High School students are required to register for a total of 35 credits every year. This is equivalent to a total of seven full-year courses.

### COURSE CREDIT VALUES

Full-year courses at Millbury High School are taken for 5.0 credits; half-year (semester) courses are taken for 2.5 credits. Promotion and credit requirements are as follows:

### MINIMUM GRADUATION REQUIREMENTS

Beginning with the Class of 2020, all students must pass the following in order to graduate:

Subject	Requirements
English	4 Years (20 credits)
Math	4 Years (20 credits)
Science and/or Technology-Engineering	3 Years (15 credits)
Social Studies	3 Years (15 credits) (1 year World History, 2 years U.S. History)
World Language	2 Years (10 credits) *State universities/colleges require two years of the same language for admissions
Health	1 Course (half-year) (2.5 credits)
Computer Applications	1 Course (half-year) (2.5 credits)
Physical Education	4 Years (half-year course) (10 credits)
Fine Arts (Performing and/or Visual)	1 year (full-year or two half-year courses) (5.0 credits total)

The following courses meet the Fine Arts requirement: any course in the Fine Arts Performing or Visual Art Department offerings, Drama and Screenwriting, Artistic Digital Design I, Intro to Web Design, Intro to Digital Photography, Digital Photography and Intro to Engineering Design (IED).



## CREDITS FOR PROMOTIONS

	Promotion Grade 10	Promotion Grade 11	Promotion Grade 12	Graduation
<b>Class of 2020 &amp; beyond</b>	30/35 credits = 85.7%	60/70 credits = 85.7%	90/105 credits = 85.7%	125/140 credits = 89%

All students must pass state MCAS tests in English Language Arts, Mathematics, and Science/Technology-Engineering in order to graduate. Students who do not score a minimum of 240 on the English and Mathematics tests will also be required to fulfill the requirements of an Educational Proficiency Plan.

## EDUCATION PROFICIENCY PLAN

An EPP is an educational planning tool developed for the subject area(s) in which students did not score at least 240 in MCAS ELA or Math. The plan focuses on student strengths and weaknesses based on MCAS and other assessment results, coursework, grades, and teacher input to demonstrate progress towards proficiency. Students must complete required courses and participate in annual assessments identified in their EPP. A student who does not fulfill the EPP will not meet the Competency Determination standard, which is a condition for high school graduation.

## ACADEMIC PROGRAM LEVELS

Millbury Jr. /Sr. High School is committed to providing equitable and quality educational opportunities to all students in accordance with the requirements of the Massachusetts Education Reform Act of 1993. As a result, programs are offered at the Advanced Placement (AP), Honors, and College Preparatory levels. The expectations of these levels vary in pace, depth of coverage, and difficulty.

### Advanced Placement



These courses use the Advanced Placement (AP) designation and prepare students for the annual College Entrance Examination Board testing program. The courses are designed for the student who is motivated and prepared for college level, accelerated work. AP courses carry a greater weight than Honors courses. Students can earn college credit or placement in more advanced college classes based on their AP test results. Many AP classes require students to attend after or before school sessions. Students taking AP classes at MHS are required to take and pay in full for the corresponding AP exam by the fourth week of the school year. The cost of the AP exam is approximately \$97 per test. Additional information can be found on the AP Central website at [www.apcentral.collegeboard.com](http://www.apcentral.collegeboard.com).

### **Honors**

These courses use the Honors (H) designation. The courses are designed for the student who is motivated and prepared to work at an advanced level. Students can expect challenging material and substantial homework assignments covering depth and breadth of the topics. Honors courses carry a greater weight than CP courses. They meet additional four-year college/university requirements.

### **College Preparatory**

These courses use the College Preparatory (CP) designation. The courses are designed for students with strong academic skills who are motivated to learn at a faster pace. Students can expect challenging material and sizable homework assignments. CP courses carry a greater weight than College Preparatory II courses. They prepare students for entrance into four-year colleges/universities.

### **College Preparatory II**

These courses have no level designation preceding the course name, i.e. Algebra. The courses are designed for students with basic skills who are motivated to learn at a reasonable pace. They carry no additional weight, but prepare students for most two-year colleges and post-graduate certificate programs.

## **MILLBURY'S AP PROGRAM**

### Science

AP Biology  
AP Chemistry  
AP Environmental Science

### Math

AP Calculus AB  
AP Computer Science Principles  
AP Statistics

### English

### History and Social Sciences

11

*\*Academic Curiosity and Growth\* \*Respect & Responsibility\* \*Citizenship\* \*Independent, Lifelong Learners\**

*Millbury Memorial Jr. /Sr. High School Core Value*



AP English Language and Composition  
AP English Literature and Composition

AP United States History  
AP United States Government and Politics  
AP Psychology

### AP Academic Expectations

Millbury Memorial Jr./Sr High School currently offers Advanced Placement (AP) courses at the sophomore, junior, and senior class levels. These courses are the most rigorously challenging of all the courses offered because they replicate the academic rigor of the college environment. The curriculum is approved by the College Board and is equivalent to a semester course taken by college freshmen. As a result, AP courses are intended for those exceptional students who can achieve college level work in high school. Students should be self motivated, possess a high degree of academic skill, and be able to absorb a large amount of information quickly. These courses require an intense commitment to independent thought and inquiry. In addition, through the school's partnership with Mass Insight, students enrolled in English, Math, and Science AP courses must attend two Saturday study sessions and take a mock exam. Although teacher recommendation is not required, it should be strongly considered when deciding to choose an AP course.

### AP Exam

Students who register for an AP course must take the AP Exam in May. AP Exams are standardized exams created by the College Board to measure how well a student mastered the content and skills of a specific AP course. The cost of each exam is \$97 (unless a reduced fee is granted to qualifying students). Full payment must be submitted to the school's AP Coordinator by the fourth week of class. Students who receive a qualifying score on the AP exam could earn college credit or advanced placement (meaning they could skip certain courses in college). Refer to individual college websites for their Advanced Placement Policy.

### AP Contract and Summer Work

Students enrolled in an AP course must sign the [AP Contract](#) and complete the assigned summer assignments. Summer assignments may be used to assist students in preparation for these courses. Any request for withdrawing from an AP course must be made no later than **July 8th, 2023**.

## **REQUEST TO CHANGE COURSES**

All course changes are processed through the Guidance Department in accordance with the following guidelines:

- Courses cannot be altered after the first full week of classes in the semester unless it is a change of level.
- Movement to a different course level must be done before the midpoint of the second quarter.



- Transcripts of students withdrawing from a course after the midpoint of the term will not receive credit and show as a “W” or “withdrawn”.
- Guidance counselors, teachers, parents and administrators are all required to sign off on any schedule changes after the first week of the semester.
- Any course changes made during the semester are at administrative discretion.

## **MASSACHUSETTS INSIGHT EDUCATION (MIE)**

Mass Insight Education (MIE) is a national nonprofit at the forefront of education reform. Its mission is to transform public schools into high-performing organizations and close the achievement gap through bold district restructuring and rigorous academic programs. Millbury Jr. /Sr. High School is a member district of MIE through assistance of grant funding. We thank the Millbury community and businesses for supporting our initiative to increase rigor and provide higher-level learning to our students. With much appreciation we thank: Millbury Federal Credit Union, Wheelabrator, Millbury Savings Bank, Fidelity Bank, and AA Transportation.

## **MINIMUM GRADE POINT AVERAGE (G.P.A.)**

Cumulative Grade Point Averages (GPA) are calculated at the end of each academic year of high school. Official GPA is provided to students in the summer before their senior year via mail. The GPA is calculated by using the grading code below and assigning the correct weight to each letter grade in the courses taken at Millbury High School. After determining the weights for each course, a sum is calculated. This sum is then divided by the number of counted courses completed. In the event that a student repeats a course taken at Millbury High School due to a failing grade, then only the passing grade will count in the GPA. GPAs are only calculated for courses taken at Millbury High School. Students taking Advanced Placement courses will receive Advanced Placement Quality Point Weighting toward their GPA only after sitting for the AP examination in May. The required minimum weighted high school GPA is 3.0 for the four-year public campuses.

State University G.P.A.

3.0

UMASS G.P.A.

3.0

The standards for admission still require the successful completion of the 17 academic college preparatory units including 4 English, 4 Math, 3 Lab Science, 2 Foreign Language, 2 Social Sciences, and 2 electives. The public colleges also have an exemption cap of 10%, which allows admission to a small number of students who do not meet the above standards.



For further information regarding the standards at State Colleges and Universities, please visit the Board of Higher Education website at [www.mass.edu](http://www.mass.edu).

## GPA, CLASS RANK, WEIGHTED FACTORS

The following are the “Levels” that are used to determine the weighted grade point average.

<b>LEVEL</b>	<b>WEIGHT</b>
Level 5 (Advanced Placement)	Final grade x <u>1.1</u> = 10% above grade pt. avg.
Level 4 (Honors)	Final grade x <u>1.05</u> = 5 % above grade pt. avg.
Level 3 (College Preparatory)	Final grade x <u>1.025</u> = 2.5% above grade pt. avg.
Level 2 (College Preparatory 2)	Final grade x <u>1.0</u> = grade pt. avg.

### METHOD OF COMPUTATION

Briefly, rank is calculated by multiplying the actual report card grade by the weight given to the level of the course. This yields the weighted grade. The weighted grades are multiplied by the course credit (2.5 or 5). The sums of these weighted grades are then divided by the total number of credits, which in turn gives a weighted average. Below is an example for one year’s computation.

Course	Level	Grade Weight	Credits	Points
Intro to Eng (PLTW)	3	85 x 1.025	x5	435.625
AP Eng.	5	85 x 1.10	x5	467.5
Pre-Calculus	3	85 x 1.025	x5	435.625
Honors US II	4	85 x 1.05	x5	446.25
Chemistry	3	85 x 1.025	x5	435.625
French III	3	85.1.025	x5	435.625
P. E.	3	85 x 1.025	x2.5	217.8125
Digital Photo	3	85 x 1.025	x2.5	217.8125

3091.875 points divided by 35 credits = **88.33 Weighted Average**



An official weighted average accurate to two (2) decimal places is computed at the end of 11<sup>th</sup> grade based on all previous academic semesters and again at the end of 12<sup>th</sup> grade. Calculation will take into account the student’s grade for a given course, the weighting factor determined by the level of that course, and the number of credits. Class ranks for each of these years are determined by putting these weighted averages into descending sequences, but will not be published or shared with colleges. Weighted GPA is shared with the junior class at the end of the academic year.

## PUBLIC FOUR-YEAR COLLEGES and UNIVERSITIES

The Massachusetts Board of Higher Education (BHE) has established minimum, coursework requirements for high school students to successfully complete, in order to be eligible for admission in its four-year colleges and universities. The chart below outlines the minimum requirements.

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

Private colleges and universities, as well as certain majors at public schools, have different admission standards and should be investigated by the student when planning his/her high school course selection.

Additionally, the Massachusetts Board of Higher Education has set a sliding scale for SAT I test scores for any student whose average is below 3.0 (85).

### UMASS Sliding Scale





\* Updated with NEW SAT scores after March 2016

High School GPA	SAT I (V+M Combined)
2.51 - 2.99	1030
2.41 - 2.50	1070
2.31 - 2.40	1110
2.21 - 2.30	1140
2.11 - 2.20	1180
2.00 - 2.10	1220

\* Updated with NEW SAT scores after March 2016

**STATE UNIVERSITY Sliding Scale**

High School GPA	SAT I (V+M)
2.51 – 2.99	990
2.41 – 2.50	1030
2.31 – 2.40	1070
2.21 – 2.30	1110
2.11 – 2.20	1140
2.00 – 2.10	1180

**NOTE: AN APPLICANT WITH A HIGH SCHOOL MINIMUM WEIGHTED GPA BELOW 2.0 (73) MAY NOT BE ADMITTED TO A STATE UNIVERSITY OR UMASS UNDERGRADUATE CAMPUS.**



## GUIDANCE & COUNSELING DEPARTMENT

The mission of Millbury Public Schools Guidance Department is to provide a comprehensive program that will assist all students in acquiring skills, knowledge, and attitudes needed to become effective students, responsible citizens, productive workers and lifelong learners. The school counseling program addresses academic, career, and personal/social needs of all students and is committed to supporting every individual's unique abilities and valuing their diversity.

We believe all students have worth and should be given opportunities to learn skills and strategies so they may become productive and well-adjusted members of the community. Opportunities for students should address their needs and be provided in a caring, supportive environment as an integral part of the total school experience. Each student is assigned a Guidance Counselor, and will have access to him/her throughout the duration of their high school career. Students may see their Guidance Counselor by requesting an appointment either in person, email, or through the Guidance Secretary. Should any questions or concerns arise, parents/guardians are encouraged to email or call their child's Guidance Counselor. See department contact information below:

Guidance Department  
Department Secretary – Jen Sizer  
[jsizer@millburyschools.org](mailto:jsizer@millburyschools.org)  
(508) 865-5843

### **Partnership with Department of Elementary and Secondary Education (DESE) with MYCAP**

*My Career and Academic Plan* prepares students for college, career and civic readiness. The MyCAP process engages students in authentic postsecondary planning through a continuum of learning focused on the individual student's interests, skills and talents. This process allows students to be the drivers of their education and empowers them to connect their course taking with career interests, to seek out career development opportunities such as internships, apprenticeships, capstone projects, and to identify the personal, social, and behavioral skills needed to be successful in the workplace.

The Millbury Memorial Jr/Sr High School Guidance Department is pleased to share that we will be partnering with DESE to bring a scope and sequence of College, Career and Civic Readiness curriculum covering grades 7-12. The result for each student is a focused, post-secondary pathway for success.



## **SPECIAL EDUCATION SERVICES**

A range of services are available to identified students based on their Individualized Education Program. The goal of this program is to meet the educational needs of the students in the least restrictive setting. Inclusive programs offer instruction in the general education classroom with

one content area teacher and one special educator co-teaching a heterogeneously grouped class. Learning center classes parallel the state frameworks and general education curriculum with a focus on individual learning styles and needs. Teaching assistants provide increased individual instruction. Appropriate services are determined through annual Individualized Education Program Meetings.

## **ARTICULATION AGREEMENTS**

Courses with an Articulation Agreement allow students, upon completion of the course, to receive college credit when meeting required stipulations set forth by the accrediting school. Millbury High school offers Articulation agreements for the courses below:

Accounting I and II	Nichols College (if taken in Senior year only)
Accounting I & II	QCC - ACC 101 Financial Accounting
Computer Applications	QCC- CIS 111 Introduction to Microcomputer Applications
Digital Photography (I and II)	IMD 161 Digital Photography
Marketing I & II	MRK 201 Principles of Marketing

## **SUMMER SCHOOL GENERAL INFORMATION**

Summer school operates on the secondary level (grades 7-12) at Millbury Jr./Sr. High School as a regular program of the Millbury School System. Summer school grade will replace the lowest quarter grade for the school year. The grade will then be re-calculated. This final grade will not be used to determine rank in class. Students may receive credit for only four (4) courses in Summer School during their years at Millbury High School.

## **SEAL OF BI-LITERACY**

The Seal of Biliteracy is an award given by a school, school district, or state in recognition of students who have studied and attained proficiency in two or more languages by high school graduation. The vision is to help students recognize the value of their academic success and see



the tangible benefits of being bilingual. For more information regarding the Seal of Bi-Literacy please visit <https://sealofbiliteracyma.org>. Test administration will take place in the 2nd semester of the school year for juniors and seniors, who are eligible to test.

## **HOME LANGUAGE TRANSLATION SERVICES**

The Millbury Public Schools recognizes its obligation to provide information about our instructional program in languages other than English for parents and students with limited English language skills. All general announcements, counseling materials, notice of extracurricular activities and information regarding school recruitment and promotional activities will be provided in the parent's or student's primary language when appropriate.

Millbury Public Schools recognizes its obligation to provide an interpreter in order to effectively communicate with parents in cases when the primary language of the home is a language other than English. Additional information regarding these services is available from the principal.

## **EARLY COLLEGE ACCESS** *Formerly Twelfth Year Program*

The Attend College Early Program is a collaboration between the student and his or her family, their high school, and Quinsigamond Community College. It is an opportunity for mature, college ready students to simultaneously complete high school graduation requirements and begin their pursuit of higher education.

Please Note: Students accepted to the ACE program are not eligible for financial aid. They are responsible for the cost of enrolling in courses at Quinsigamond Community College.

### Acceptance Criteria

To be eligible for acceptance into the ACE option, a student must meet the following criteria:

#### Required

- \* Be currently enrolled in high school
- \* Have MCAS scores as follow:
  - 2.7 unweighted GPA and Advanced on the ELA MCAS, or
  - 2.7 unweighted GPA and Proficient on the ELA MCAS and a B average (3.0) in English, or



- 2.7 unweighted GPA and top 75 percentile for Verbal on PSAT
- \* Demonstrate satisfactory disciplinary history in his/her student profile
- \* Students are asked to send their transcript and standardized test scores to [ace@qcc.mass.edu](mailto:ace@qcc.mass.edu)

Preferred application deadline for the Fall semester: July 1

Preferred application deadline for the Spring semester: December 15

The College is currently not offering an in-person Placement Test. As an alternative to the placement test, ACE program applicants are being asked to provide their high school transcript and a copy of their MCAS scores. (If they have not taken MCAS then PSAT scores). Additional qualifiers are a grade of "C" or higher on college-level English courses or a score of 3 on AP English Literature and Composition. Additional appropriate alternative assessment on a case by case basis.

### How to Apply

Step One: Email an ACE Enrollment Counselor at [ace@qcc.mass.edu](mailto:ace@qcc.mass.edu) for information about how to begin to apply. You will be asked to complete a form and provide your high school transcript and MCAS test scores.

Step Two: A QCC ACE program enrollment counselor will contact you to provide the ACE application if you meet academic standards. You will receive an application to be completed by the student and the student's family. You will also receive a separate application to be completed with the Guidance Counselor and signed by the principal.

Step Three: Your high school guidance counselor will list the courses that you must take to fulfill high school graduation requirements. It is recommended that alternate courses are also included, in the event that a first choice is unavailable.

Step Four: Return both completed ACE applications to your QCC Enrollment Counselor at the email they provide. An ACE program enrollment counselor will contact you to make a class registration appointment.

Step Five: Registration for courses takes place during this appointment as long as both student and parent are satisfied that this is an appropriate academic opportunity.



## Business/ Applied Arts



Careers in the Business cluster relate to planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Careers in leadership, management, and support roles are needed by all types of organizations to operate successfully.

### Sample Careers:

- Business Manager
- Marketing Specialist
  - Financial Analyst
- Administrative Assistant
- Human Resources Specialist
  - Loan Officer
  - Budget Analysts
  - Accountant
  - General Manager
- Insurance Underwriters
  - Real Estate
- + More



### Millbury Courses

- Planning Your Future CP
- Computer Applications CP\*
- Advanced Computer Applications CP
- Digital Info in the Electronic Age CP
- Introduction to Digital Photography CP
- Digital Photography CP
- Marketing CP
- Sports and Entertainment Marketing CP
- Artistic Digital Design CP
- Entrepreneurship CP
- Accounting I CP
- Accounting II H\*\*
- Video Production I CP
- Money Management CP
- College and Career Readiness CP
- Intro to Financial Markets and Stock Investing CP/H
- Economics CP/H
- Introduction to Web Design CP
- Personal Finance CP II
- Tech Prep Internship CP

\* Graduation requirement

\*\* Offered every other year

Take our [Career Clusters Assessment!](#)

[More Information](#)



## BUSINESS CONCENTRATION

The Millbury High School Business Concentration is committed to providing students with the business knowledge, communication, and technology skills necessary to excel in college and the workplace. We will provide students with a rigorous, dynamic, and interpersonal academic and project-based business program that fosters critical and creative thinking relevant to today’s business environment. *Articulation agreements are eligible to students enrolling in a program within three years of taking the articulated class.*

Students must take a minimum of 17.5 credits from approved courses with a minimum of 10 credits from classes in Group A. Students must receive a minimum average of 70 to count the course toward the concentration. Some Virtual High School (VHS) classes may apply with business department approval.

### Group A

- Computer Applications (2.5)
- Advanced Computer Applications (2.5)
- Accounting I (2.5)
- Accounting II (2.5)
- Entrepreneurship (2.5)
- Economics (2.5)
- Marketing I (2.5)
- Sports and Entertainment Marketing (2.5)
- Personal Finance (5)
- College and Career Readiness (2.5)
- Money Management (2.5)
- Intro to Financial Markets and Stock Investing (2.5)

### Group B

- Artistic Digital Design (2.5)
- Intro to Web Design (2.5)
- Intro to Digital Photography (2.5)
- Digital Photography (2.5)
- Planning your Future (2.5)
- Video Productions I (2.5)

## COURSE OFFERINGS

### **Planning Your Future** **5113 (College Prep)**

**Grades 9, 10**  
**2.5 credits**  
**22152**

Planning Your Future is a course that introduces students to the foundations of personal finance. Students will familiarize themselves with various financial decisions they may have to make in the coming months and years. This course will introduce students to the following topics: Saving, Budgeting, Debt, Life After High School, Insurance, Investing for Retirement, Careers & Taxes. Personal finance is an important part of everyday life and this course is designed to give students a head start on their future.





**Computer Applications I**  
**5123 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**10004**

This course will introduce students to various microcomputer applications. In addition to learning the Microsoft Office Suite, students will perfect their keyboarding skills in order to process information quicker and more accurately and prepare documents professionally. Students will gain knowledge of Microsoft Office applications. This course corresponds to CIS 111 (Introduction to Microcomputers) at Quinsigamond Community College when paired with Advanced Computer Applications. To receive the articulation agreement this course must be taken in the same school year and no earlier than grade 10 (minimum GPA required). Grades 9, 10 preferred.

**Advanced Computer Applications**  
**5133 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**10004**

This project-based course provides a more detailed coverage of common computer software applications used in business and industry. It assumes that the student is knowledgeable of basic computer skills from taking introduction to computer applications and builds on that basis. Emphasis is on the application of advanced features of Microsoft Office Suite as well as new programs such as Adobe Professional and Microsoft Publisher. It is taken after the successful completion of Computer Applications (5123) with a grade of 70 or higher.

**Digital Information in the Electronic Age**  
**5223 (College Prep)**

**Grades 9- 12**  
**2.5 credits**  
**01105**

The aim of this course is to help students become more information literate. By studying social media, news media and internet sources, students will learn to recognize misinformation and determine the reliability of sources. Students will also discuss intellectual property and make extensive use of online tools to conduct research and create reference pages.

**Introduction to Digital Photography**  
**5613 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**11151**

This course allows students to explore the basics of digital photography through photography and image editing. This course makes use of Adobe Photoshop to create and manipulate images. Students will also be introduced to the basics of photography including basic composition and good photo techniques. Career possibilities will be discussed throughout the course.

**Digital Photography**  
**5623 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**11151**

This course involves basic to intermediate use of digital graphic computer programs found at all levels of the entertainment and advertising industry. This course is for any student with an interest in digital imaging or any students who would like to learn a way to turn his or her creativity into a possible career in the up and coming



world of digital imagery. This course utilizes Adobe Photoshop. Digital photography is integrated into the field as an advanced application as well as the use of electronic image enhancement programs used in computerized graphic layout. Color theory and its basic applications will be explored. Career possibilities will be discussed throughout the course. Articulation agreement with Quinsigamond Community College.

*Prerequisite: Intro to Digital Photography*

**Marketing**  
**5733 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**12164**

The course focuses on exploring marketing practices, stressing math fundamentals and applications, and helping students explore their interests and abilities in marketing and business as a career. Different marketing techniques such as promotion, buying, pricing, selling, and basic management skills will be examined. This course incorporates current developments in marketing to help students understand the ongoing world of marketing we encounter in our everyday lives.

**Sports and Entertainment Marketing**  
**5743 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**12161**

This class covers topics through the industries of Sports, Entertainment, and Fashion. This course stresses the utilization of fundamental marketing concepts in these industries. Marketing strategies along with topics in sponsorship, pricing, marketing research, endorsements, and promotions will be part of this course. Both Marketing classes are aligned with the National Marketing Education Association.

**Accounting I**  
**5323 (College Prep)**

**Grades 10-12**  
**2.5 credits**  
**12104**

The content and organization of this course is designed to provide general preparation for the business world. It also meets the needs of those students who plan to obtain an introductory position in accounting or plan to own their own business. Students planning to pursue a post-secondary business program should take this course. Students will also be introduced to the use of spreadsheets in accounting and related software.

*Highly recommended for students planning to go to business school or college with an interest in the areas of business, accounting, management, finance, economics, etc.*

*Prerequisite: Complete Computer Applications I prior to taking this course*

**Accounting II**  
**5344 (Honors)**

**Grades 10-12**  
**2.5 credits**  
**12104**

This advanced course gives students a deeper knowledge of Accounting. Accounting problems and interpretation of financial statements, worksheets, and corporate accounting are discussed. Students will use computers to aid them in their work. Students create templates for all journals, ledgers, and financial statements. This course is strongly recommended for any student planning to major in business, management, accounting, economics, etc. Along with engineering, there is a high demand for accountants in the world today.



*Prerequisite: Accounting I with a grade of 75 or above. Articulation agreement with Nichols College when taken during a student's senior year and meeting all articulation requirements.*

*\*\*Class will be offered every other year*

**Entrepreneurship**  
**5513 (College Prep)**

**Grades 10-12**  
**2.5 credits**  
**12051**

This course will provide an introduction to the areas of basic business skills, economics, entrepreneurship/management, marketing, accounting and financial management, and operations management. This is a project-based class and is focused on real world application of business techniques for any student interested in learning more about business. Individual and team oral and written presentations will be required. This class provides a solid foundation for more advanced business classes but does not need to be a prerequisite to other business courses.

**Personal Finance**  
**572 (College Prep 2)**

**Grades 10-12**  
**5 credits**  
**12103**

This course will help students become knowledgeable consumers, workers, and citizens in a fast-paced economy. Students will investigate the stock market, learn marketing strategy, and money and banking policy. Using credit wisely is also a component of the course. This course prepares students to learn how to responsibly and effectively manage money and covers topics of financial planning, taxes, and how the economy affects the consumer. This course is also strongly recommended for students majoring in business.

*Course can count for seniors as a 4th year math if Algebra II has been completed but will not count towards the four-year college math requirement*

**Money Management**  
**5543 (College Prep)**

**Grades 10-12**  
**2.5 credits**  
**12103**

This course equips students with the material necessary to understand, plan, and manage their financial affairs throughout their life. Students will investigate real world topics including understanding your income, taxes, loans, credit cards, insurance, saving, and investing. This course will help students become knowledgeable consumers, workers, and citizens in a fast-paced economy. Money Management is a semester course that runs in Fall Semester in the same classroom as Personal Finance. Because this class runs together, students can not take both Personal Finance and Money Management.

*Seniors looking for a 4th year math are recommended to take Personal Finance.*

**Video Production**  
**5913(College Prep)**

**Grades 10-12**  
**2.5 credits**  
**05168**

This course is designed for students interested in learning the technical and creative aspects of video production. Students will receive instruction in the operation of studio and portable video cameras, a variety of audio and lighting equipment, and editing systems. Additionally, the student will learn scriptwriting, storyboard creation, producing, and organizational skills. This class creates the daily news. Class max of 16 students.



**Intro to Financial Markets and Stock Investing**

**5333 (College Prep)**

**5334 (Honors)**

This class introduces students to the professional side of finance and investing. Students will develop an understanding of stocks and how to analyze them the way professionals on Wall Street do. This class will also introduce other popular investments, including bonds, options, and cryptocurrencies/NFTs. This class is ideal for anyone interested in going into the finance industry, but will also be valuable to any student that is interested in being a more informed investor.

**Grades 11 -12**

**2.5 credits**

**12107**

**Economics**

**5533 (College Prep)**

**5534 (Honors)**

This course covers the basics of Economic Theory. Examples of topics discussed will include supply and demand, opportunity cost, schools of economic thought, and other themes. Students will use economic concepts in a reasoned, careful manner in dealing with personal, community, national and global economic issues. Students will be expected to use existing knowledge of mathematics and quantitative reasoning in this course to analyze economic models and graphs. This course is highly recommended for students planning to go to business school or college with an interest in the areas of business, accounting, management, finance, economics, or political science.

**Grades 11, 12**

**2.5 credits**

**12105**

*\*\*Class will be offered every other year*

**College and Career Readiness**

**5923 (College Prep)**

This course is designed with all students in mind. It will not only help build work-related skills in students who are not planning on attending post-secondary schooling, but is also intended for students planning on attending two-year and four-year institutions. Students will be assisted in developing general work-related skills and preparation for the workplace. This course will attempt to equip students with occupational skills that will help them enter, survive in, succeed in, advance in, and earn a living in the American labor market today and in the future. Students will also learn the educational requirements needed in order to advance in a certain career area (s). Finally, the main goal of the course is to help students focus on a particular career area in order to help them better plan for their immediate future, whether it be entering the world of work after high school or continuing their education. Incorporated into the program is the Junior Achievement component "Success Now". This course is recommended for all tech prep students. Students may participate in an internship or shadow experience after successful completion of the course

**Grades 11, 12**

**2.5 credits**

**22151**

**Artistic Digital Design I**

**9723 (College Prep)**

**Grades 9-12**

**2.5 credits**

**05169**



This studio course contains a digital design component that allows students to work with the computer as well as with traditional media and design material. Industry standard computer programs such as Adobe Illustrator, Photoshop, Flash. will be used.

**Intro to Web Design**  
**5823 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**11153**

This class will introduce students to the process of creating a website or a mobile app using web technologies. Students will learn how the technologies work and how to write the code that will produce a webpage, while building their own websites. The technologies used include html, css, and javascript. This course is ideal for students considering computer science or graphic design as career options. It is also a great course for students interested in learning about web development as a hobby or would be interested in freelance web design as a side hustle.

**Tech Prep Internship**  
**5003 (College Prep)**  
**5023 (College Prep)**

**Grades 11, 12**  
**2.5 credits**  
**5 credits**  
**22153**

This course is designed to provide the student with practical work experience in the career area he/she chooses. The duration of the internship may vary and is adapted to fit in with the student's academic schedule. Many of these internships evolve into part-time jobs. Punctuality, confidentiality, proper dress, and positive work attitudes are emphasized. Students must be interviewed by the internship sponsor as part of the experience. A work-based learning plan is also part of the program. In order to participate in an internship, the student must be in good standing in all areas including but not limited to: attendance, academics, and conduct.

**THE BENEFITS OF AN INTERNSHIP**

Internships are a valuable experience and privilege. They provide an education outside the classroom that helps you to identify new strengths and areas in which to improve. Students will benefit by applying classroom knowledge & planning academics, interning in a job related to a potential major, gaining confidence, clarifying career goals, making potential contacts for a future job search, gaining valuable work experience and learning professional behavior for a resume.



## English



Workers in this group utilize critical thinking, creativity, and interpretation. Studying English prepares you for a diverse range of professional fields, you'll develop comprehensive written and spoken communication skills, becoming adept at arguing a point, framing a narrative and analyzing various levels of meaning.

### Sample Careers:

- Reporter
- Journalist
- Editor
- Librarian
- Writer
- Publisher
- Copywriter



### Millbury Courses

#### Core

- English I CP2/CP/H
- English II CP2/CP/H
- English III CP2/CP/H
- English IV CP2/CP/H

#### Electives

- WIN ELA 9/10 CP
- Fairy Tales: Origins to Pop Culture CP
- Mythology CP
- Drama and Screenwriting CP
- Literature and Film CP
- Horror CP
- Children's Literature and Legends CP

#### Advanced Placement

- AP English Language and Composition
- AP English Literature and Composition

Take our [Career Clusters Assessment!](#)  
[More Information](#)





## **English Department Summer Reading**

All students are required to participate in the Summer Reading Program. Summer reading information will be provided before the end of each school year and posted on the school website. Advanced Placement students are expected to complete additional summer reading assignments, designed to facilitate student success and interaction with the reading and subsequent material that will be presented throughout the year. Millbury Jr. /Sr. High School strongly encourages student and parental support for the goal of promoting literacy and learning.

### **English I**

**113 (College Prep)**

**114 (Honors)**

**Grade 9**

**5 credits**

**01001**

This course focuses on a wide-range of skills and concepts including vocabulary enrichment, grammar instruction, and improvement in writing and speaking techniques. Students will study literature by genre: short stories, poetry, drama, novels, and nonfiction. They will utilize the writing process and compose responses to open-ended MCAS practice questions. Most composition topics will be in response to an analysis of the literature.

### **English I**

**119 (College Prep 2)**

**Grade 9**

**5 credits**

**01001**

This course focuses on a wide-range of skills and concepts including vocabulary enrichment, grammar instruction, and improvement in writing and speaking techniques. Students will study literature across a variety of genres: fiction, non-fiction, poetry, drama and essays/ articles. They will utilize the writing process and compose responses of various lengths to open-ended questions. Most composition topics will be in response to an analysis of the literature. Placement in this course is based on a TEAM decision. This course takes place within a small-group setting, utilizing individualized accommodations and modifications.

### **English II**

**123 (College Prep)**

**124 (Honors)**

**Grade 10**

**5 credits**

**01002**

This course concentrates on the ideas and problems presented in various literary genres and focuses on the core literary works of the tenth grade curriculum. Emphasis will be on writing, vocabulary development, and grammar and language study. Students will learn the steps and skills necessary to write a research paper and compose their own research paper on a topic associated with the literature read in class. Students will continue to practice responding to MCAS open response and essay questions.

### **English II**

**129 (College Prep 2)**

**Grade 10**

**5 credits**

**01002**





This is a survey course concentrating on the ideas and problems presented in various literary genres as well as focusing on the core literary works of the tenth grade curriculum. Emphasis will be on writing, vocabulary development, and grammar and language study. Students will learn the steps and skills necessary to write a

research paper and compose their own research paper on a topic associated with the literature read in class. Students will continue to practice responding to MCAS open response and essay questions. Placement in this course is based on a TEAM decision. This course takes place within a small-group setting, utilizing individualized accommodations and modifications.

**English III**

**133 (College Prep)**

**134 (Honors)**

**Grade 11**

**5 credits**

**01003**

This course will focus on an in-depth study of major American literary works. Novels, plays, nonfiction, and poetry are the critical core genres of this course. Students will continue to strengthen their writing skills through a variety of frequent essays and papers relating to the literary works read in class. In addition, a research paper on a facet of American Literature will be required.

**English III**

**139 (College Prep 2)**

**Grade 11**

**5 credits**

**01003**

The course emphasis will be on the development of reading comprehension, writing, speaking, and listening skills. A study of vocabulary and grammar usage will be reviewed. This course involves a study of American Literature from various time periods. Placement in this course is determined by a TEAM decision. This course takes place within a small group setting utilizing individualized accommodations and modifications.

**English IV**

**143 (College Prep)**

**144 (Honors)**

**Grade 12**

**5 credits**

**01004**

This course includes a survey of world literature and incorporates works from a variety of ages, time periods, and genres, leading students to an awareness and appreciation of literature from various countries. Students will engage in critical analysis with attention to structure, style, and theme, as well as use of figurative language, imagery, and symbolism. The composition segment will include a study of narrative, informational, and argumentative writing. Students will continue to focus on strengthening their research skills, appropriately utilizing media and technology, culminating in the submission of a required research paper. The Honors section will add more advanced readings and a greater scope to the curriculum.

**English IV**

**149 (College Prep 2)**

**Grade 12**

**5 credits**

**01004**

This course includes a survey of world literature and incorporates works from a variety of ages, time periods, and genres, leading students to an awareness and appreciation of literature from various countries. Students will engage in critical analysis with attention to structure, style, and theme, as well as use of figurative language, imagery, and symbolism. The composition segment will include a study of narrative, informational, and argumentative writing.



Students will continue to focus on strengthening their research skills, appropriately utilizing media and technology. Placement in this course is determined by a TEAM decision. This course takes place within a small group setting utilizing individualized accommodations and modifications.

**Advanced Placement English Language & Composition**  
**135 (Advanced Placement)**

**Grades 11, 12**  
**5 credits**  
**01005**

AP English Language and Composition is an intensive college-level course in effective writing and critical reading. Students will become skilled readers of prose written in a variety of periods and rhetorical contexts. The course teaches understanding of both fiction and nonfiction, drawing on historical and contemporary writings for extensive analysis. This course will require more reading and analytical writing than honor's level English. Additional summer reading is required. The course prepares students for the required AP English Language and Composition exam in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.

**Advanced Placement English Literature and Composition**  
**145 (Advanced Placement)**

**Grade 12**  
**5 credits**  
**01006**

This course engages students in a thorough study of imaginative literature, representing a variety of genres and periods. Students will closely examine selected texts, with emphasis on structure, style, and theme. Daily classroom discussions, weekly writing assignments, and larger research-based projects will invite students to carefully analyze various texts and write for a number of purposes. Students will build a substantial online writing portfolio throughout the year. AP Literature and Composition test prep activities will help students hone their test-taking skills, including an AP mock exam conducted midway through the course. Colleges may give credit for this course, depending on the score achieved on the AP exam that is taken in May. Students enrolled in this course are required to take the Advanced Placement Examination. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.

## ADDITIONAL OFFERINGS

**W.I.N. ELA 9-10**  
**0102 (College Prep)**

**Grades 9-10**  
**2.5 credits**  
**22002**

This course is designed for students who need additional support accessing the grade nine and ten curriculum. Students will also work towards preparing for the state mandated MCAS assessment. Students will focus on improving their reading scores and ELA skill set in order to better access grade level materials. This course is skill-driven, allowing students to practice necessary appropriate standards work. In completing this course, students should feel more confident in their mastery of each skill. Students will have individualized and small group instruction to foster their reading comprehension and writing skills using age appropriate texts. Skills stressed include language, context clues, rhetoric, purpose, and main idea. In doing so, students will become stronger readers and students. This course aligns with Common Core standards.



*Note: The credits for this course do not fulfill the school's English credit requirements for graduation.*

**Mythology**

**1543 (College Prep)**

**Grades 10-12**

**2.5 credits**

**01061**

The course is an overview of the mythology that predates Christianity/Islam/Judaism. It will focus mostly on the Greek and Roman gods, with excerpts from the *Iliad* and *The Odyssey*, and then a brief overview of Norse and Celtic or Egyptian mythology at the end of the course.

**Drama and Screenwriting**

**1633 (College Prep)**

**Grades 10-12**

**2.5 credits**

**01061**

In Drama and Screenwriting, we are going to focus our class on themes of What Makes Good Drama?, Theatrical History, Collaboration & Screenwriting . We will study each theme by reading selections from poetry, drama, and textbook excerpts. We will write essays, plays/scripts, as well as give oral presentations, in order to excavate various questions. It is important to have our discussion hats on for an engaging conversation!

*Note: This class meets a fine arts requirement.*

**Literature and Film**

**1723 (College Prep)**

**Grades 10-12**

**2.5 credits**

**01053**

Teaching both literary and film-making techniques, students will view and analyze a variety of quintessential films that have made a lasting impression on American society. Students will explore what literature and film mean in the context of a multicultural society, studying canonical pieces as well as new and rediscovered voices. Students will explore social, historical, economic, political, and artistic issues. If time allotted, students will also analyze and critique the artists' use of lighting, camera angles, music and sounds, and editing to better evaluate a films' success.

**Fairy Tales: Origins to Pop Culture**

**1743(College Prep)**

**Grades 9-12**

**2.5 credits**

**01605**

This course will examine the fairytale genre that has endured throughout time in many cultures and consider how and why these stories still have an impact on society today. The course will cover the Brothers Grimm fairy tales, such as Snow White, Cinderella, Briar Rose, and Beauty and the Beast, Hans Christian Anderson's The Little Sea-maid and The Snow Queen, as well as classic stories of folklore. The course will examine the structure of these stories and compare them to modern counterparts, such as Disney films, to better understand how these works have developed and what they imply about our own cultural beliefs and values.

**Horror**

**1843 (College Prep)**

**Grades 10-12**

**2.5 credits**

**01065**

This course is designed for all students with an interest in the genre of horror. Students taking this class will study horror literature and film, its origins, and the various things associated with its art. They will also examine the genre



of horror from a psychological perspective. Students will study the leading writers, films, and filmmakers of this genre, such as Edgar Allan Poe, Stephen King, Wes Craven, and Alfred Hitchcock, to name a few.

**Children's Literature and Legends**

***1943 (College Prep)***

***Grades 9-12***

***2.5 Credits***

***01065***

Some stories are truly timeless and have shaped the world in ways we might not recognize. In this course, we will look at classic texts that are often read to or depicted in media for children. We will consider how stories shape identity and allow children to process their emotions and adopt certain values. We will also focus particularly on stories of heroes and legends that spark imagination and have been embraced by various cultures throughout the world. Some of our course texts will include *The Many Adventures of Winnie the Pooh*, *Peter Pan*, *The Once and Future King*, *Don Quixote*, *Harry Potter*, and other works. This course will also dive into media interpretations of classic works as a means of considering how these classic stories have become so iconic.



## Fine Arts—Performing



Musicians write, record, and perform music. They may be trained in a particular musical genre and play a number of instruments. Musicians' daily activities include rehearsing, recording, writing lyrics and delivering performances. They may also appear on TV and radio.

### Sample Careers:

- Music Producer
  - Musician
- Music Teacher
- Performer
- Music Publicist
  - Composer
- Recording Engineer



### Millbury Courses

#### Core

- Ensemble CP/H

#### Electives

- Piano Lab CP
- Introduction to Music Theory CP
- Advanced Music Theory CP
- Music Production and Technology CP
- Unified Music CP

#### After School Opportunities

- Marching Band

Take our [Career Clusters Assessment!](#)

[More Information](#)



## COURSE OFFERINGS

### Piano Lab

**9113(College Prep)**

**Grades 9 - 12**

**2.5 credits**

**05108**

The class is open to all students with or without musical experience. Students will learn how to read music notation, rhythms and learn how to play the piano from beginner right through intermediate levels. Students will learn basic piano technique and skills that they can transfer into more difficult assignments. Students will get opportunities to learn how to play songs of their choice using chords and melodies. The class is set up as a self-directed course with students working at their own pace to accomplish assignments. Students with any amount of previous piano experience, or none, will find unlimited possibilities to enhance skills. Class is limited to 12 students due to available space and equipment.

### Ensemble

**913 (College Prep)**

**914 (Honors)**

**Grades 9 -12**

**5 credits**

**05103**

This course combines both band and chorus. The band section of the ensemble is open to all students who play an instrument in the area of woodwinds, brass, or percussion. The ensemble will study music from multiple time periods and perform various concerts throughout the year. Musical elements will be addressed and valuable ensemble and group-work skills will be constantly reinforced. Participation in all performances and activities is required and is considered an integral part of the course. Enrolled students are not required to participate in the Marching Band. In addition, the chorus section of the ensemble is open to all students who have a desire to sing. Basic choral repertoire and various musical styles will be explored. Emphasis will be placed on vocal production, proper breathing, and basic sight reading. Chorus and Band members will also have the opportunity to audition for the Central District honor ensembles. Students may participate in Ensemble and be members of both the band and the chorus.

*\*For a student to qualify for the Honors section of Ensemble (in band), the student will have more rigorous playing tests for the Honors students throughout the year including the midterm and final. In addition, students will be required to meet two criteria out of four from the following list: participation in an extracurricular ensemble, participate in a solo or a chamber group, participate in an outside ensemble or take private lessons.*

### Unified Music

**9213 (College Prep)**

**Grades 9-12**

**2.5 credits**

**05201**

In this course, students of varying ability levels and backgrounds will come together on equal terms through music creation, experience, and movement. The Unified Music course is structured to give all students in grades 9-12 a place to experience high-level, community music making through a variety of activities geared towards achieving the NAfME National Music Standards. Additionally, the class supports the development of leadership skills for all students, as well as the empowerment of all students to foster an inclusive class and school-wide environment.





**Music Production and Technology**  
**9313 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**05149**

This class is intended to introduce students to the building blocks of music technology, theory, and production. The course will introduce students to the technology behind music creation of pop, rock, hip-hop, R&B, and other genres. This class is project based with basic music theory mixed in throughout. Students will create and edit music, record podcasts, write soundtracks, and more using music technology software and MIDI keyboards. This class will run in a computer lab set-up and will familiarize students with the music programs Soundtrap and Noteflight.

**Introduction to Music Theory**  
**9413 (College Prep)**

**Grades 9 -12**  
**2.5 credits**  
**05114**

This course will introduce students to the world of music harmony and composition. Class content includes reading music, triads, melody, harmony, texture, rhythm and form with musical analysis as well as creating music. Also, time will be spent developing skills in ear training and part writing. This course is designed to prepare students for college level courses if they wish to pursue music further. We cover the concepts required for many college acceptance tests into various music programs. This class is open to all students, even those without any musical background. We will explore the features of the music notation program “Noteflight”.

*Prerequisites: 1 year of Ensemble OR 1 semester of piano OR teacher permission.*

**Advanced Music Theory and Technology**  
**9423 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**05114**

This course will introduce students to the world of music harmony and writing along with the technical side of musical equipment. Content of the theory section includes triads, melody, harmony, texture, rhythm and form with musical analysis. Also, time will be spent developing skills in ear training and part writing. This course is designed to prepare students for college level courses if they wish to pursue music further. We cover the concepts required for many college acceptance tests into various music programs. The technology part will explore music mixing, recording and sound engineering. We will use the program “Noteflight” to help complete our work.

*Prerequisite: Intro to Music Theory or Instructor's permission*

**Marching Band**  
**97213 (College Prep)**

**Grades 9-12**  
**1 credit**  
**05104**

This ensemble rehearses after school and plays and competes in several parades and competitions throughout the state. The group consists of instrumental and color guard members. Rehearsals are very crucial and important, and the group depends on the good attendance record of each other in order to succeed. The ensemble also performs at many events throughout the Millbury community including parades, functions, and football games. Although the schedule starts out rather intense, students are reminded that the season is rather short and spans till the beginning of November.





## Fine Arts—Visual



Focused on designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism and entertainment services.

### Sample Careers:

- Animator
- Graphic Designer
  - Illustrator
- Interior Design
- Architecture
- Photographer
- Printmaker
- Art Director
- Film Producer



### Millbury Courses

#### Core

- General Art I CP
- General Art II CP
- Portfolio Art CP

#### Electives

- Art Exploration CP
- Digital Animation CP
- Unified Art CP
- 3D Art CP

Take our [Career Clusters Assessment!](#)

[More Information](#)



## COURSE OFFERINGS

**Art Exploration**  
**9513 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**05155**

Art Exploration is specifically designed for the Freshman Art student getting ready for a four-year Art program or any other student not planning a career in Art. This course is intended to be an introduction to media and drawing materials that will encourage skill and development of the artist's eye. This course may not be substituted for a General Art I class.

**General Art I**  
**953 (College Prep)**

**Grades 9-12**  
**5 credits**  
**05155**

This course is designed to give the student experience in a variety of techniques and approaches to the arts foundation. The course is structured to incorporate the basic drawing and painting materials. Basic drawing theories will be introduced through a chain step curriculum. Projects will be designed to aid in better ways of seeing with emphasis on eye-hand coordination. Pottery and craft items will be introduced in the second half of the year as a study of 3-dimensional design theory and applications of media. The curriculum builds towards more conceptual and sophisticated projects that encourage flexible source materials and personal style.

**General Art II**  
**963 (College Prep)**

**Grades 10-12**  
**5 credits**  
**05155**

This second year Art program serves as a bridge to selecting and studying in the Arts as a possible career choice. Students will gain broader experience and be introduced to specific media skills. During this time, students learn to objectively analyze their work and to include classroom critique and discussion as part of the creative process. The program prepares students to work on a professional level giving them a comprehensive understanding of the illustration field and portfolio development.

*Prerequisite: General Art I*

**Portfolio Art**  
**973 (College Prep)**

**Grades 10-12**  
**5 credits**  
**05156**

The Portfolio Art program enables highly motivated students to compile and expand upon college level work in studio art. The program is intended only for students seriously committed to the study of art beyond high school. Students will work individually with the art teacher to complete the program and prepare for portfolio evaluation, focusing on the work required for portfolio submissions. Special consideration may be given with written approval from the instructor. It is highly recommended that a General Art course be taken prior to taking this program. Students considering a career in game development or graphic design must present a portfolio of manual works to prospective colleges.

*Prerequisite: General Art I and General Art II*



**3D Art**  
**9523 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**05158**

This course is designed to explore the Elements and Principles of Art through sculpture as an artform and how it has been influenced by a variety of contemporary and historical artists from around the world. Students will create individual and collaborative sculptures through a variety of media and units ranging from ceramics, cardboard, plaster cloth, wood, additive and subtractive sculptural experiences, found object assemblages, etc. While the majority of the projects will be three-dimensional in nature, sketching will be necessary for idea development for each unit. Students will be expected to maintain an on-line gallery exhibiting their work throughout the year and participate in a district-wide art show in the Spring.

**Unified Art**  
**9623 (College Prep)**

**Grades 9-12**  
**2.5 Credits**  
**05201**

In this course, students of varying ability levels and backgrounds will come together on equal terms to create art. We focus on improving the creativity and fine motor skills of students with unique needs by providing meaningful art experiences with a focus on ability, not disability. Processes explored include (but are not limited to) drawing, painting, printing, and sculpting. Students create artwork both independently and collaboratively throughout the year. Additionally, the class supports the development of leadership skills for all students, as well as the empowerment of all students to foster an inclusive class and school-wide environment.

**Digital Animation**  
**9743 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**10203**

This course prepares students to use artistic and technological foundations to create animations. The basic principles of digital animation are reviewed, including character development and story conception. Students learn the technical language used in the animation industry and basic animation methods. Students will use Adobe Animate and other Adobe suite products in this course.



## Mathematics

Workers in this career group use arithmetic and apply advanced techniques to make calculations, analyze data, and solve problems.

### Sample Careers:

- Data Scientists
- Mathematicians
- Statisticians
- Data/Research Analysts
  - Actuaries
- Financial Analyst
  - Economist
  - Auditor
- + More



### Millbury Courses

#### Core

- Algebra I CP2/CP/H
- Geometry CP2/CP/H
- Algebra II CP2/CP/H
- Pre-Calculus CP/H
- Math Analysis CP\*
- Statistics CP
- Personal Finance CP2 (Grade 12 Only)

#### Elective

- WIN Math 9/10 CP

#### Advanced Placement

- AP Statistics
- AP Computer Science Principals
- AP Calculus AB

\* Title may change

Take our [Career Clusters Assessment!](#)  
[More Information](#)



It is recommended that students refer to the course sequencing map above and confer with their current mathematics teacher before registering for any new mathematics course. Students must pass four years of mathematics (not four units) in order to meet graduation requirements.

***Note: Upon teacher recommendation, students may take 224 Geometry Honors and 234 Algebra II H in the same year in order to advance through the mathematics program.***

***\*\*Students with a teacher recommendation can also take AP Statistics concurrently with Algebra II Honors sophomore year or with Pre-Calculus or Algebra II Honors concurrently junior year.***

<b><u>Algebra I</u></b>	<b>Grade 9</b>
<b>213 (College Prep)</b>	<b>5 credits</b>
<b>214 (Honors)</b>	<b>02053</b>

In this course the fundamental process of number systems is stressed. Topics covered include working with algebraic expressions; linear, quadratic, and exponential functions; systems of linear equations and inequalities; properties of exponents; and polynomials and factoring. Additional topics include geometry, measurement, and data analysis and statistics in order to better prepare students for state testing.

<b><u>Algebra I</u></b>	<b>Grade 9</b>
<b>209 (College Prep 2)</b>	<b>5 credits</b>
	<b>02053</b>

In this course the fundamental process of number systems is stressed. Topics covered include working with algebraic expressions; linear, quadratic, and exponential functions; systems of linear equations and inequalities; properties of exponents; and polynomials and factoring. Additional topics include geometry, measurement, and data analysis and statistics in order to better prepare students for state testing. Placement in this course is based on a TEAM decision. This course takes place in a small group, structured setting with individualized accommodations and pacing.

<b><u>Geometry</u></b>	<b>Grades 9, 10</b>
<b>223 (College Prep)</b>	<b>5 credits</b>
<b>224 (Honors)</b>	<b>02072</b>

This course is the study of formal geometry which develops a student's ability to think critically and logically about mathematics. Introduction of definitions, postulates, theorems and corollaries allow the student to analyze properties and relationships of two and three dimensional figures.

<b><u>Geometry</u></b>	<b>Grade 10</b>
<b>249 (College Prep 2)</b>	<b>5 credits</b>
	<b>02072</b>

This course is the study of formal geometry which develops a student's ability to think critically and logically about mathematics. Students will utilize definitions, postulates, and theorems in order to analyze properties and relationships of two and three dimensional figures. Placement in this course is based on a TEAM decision. This course takes place in a small group, structured setting with individualized accommodations and pacing.



**Algebra II**

**233 (College Prep)**

**234 (Honors)**

Algebra II Honors is an intensive investigation of topics such as functions, polynomials, and factoring as a method of problem-solving. Topics also studied in depth are relations, fractional expressions, rational numbers, expressions and equations, irrational and complex numbers, and quadratic, exponential, and logarithmic functions. Much independent work is expected of the students in this course. Class participation and critical thinking skills are essential aspects of this course.

*Prerequisite: Successful completion of Algebra I and teacher recommendation.*

**Algebra II Topics**

**232 (College Prep II)**

This course is an overview of the topics covered in Algebra II CP, and does not meet the requirements for a four-year college. The focus of this course is the analysis of equations and functions including absolute value, quadratic, exponential, polynomial, rational, and trigonometric.

**Algebra II Topics**

**269 (College Prep 2)**

This course is an overview of the topics covered in Algebra II CP. The focus of this course is the analysis of equations and functions including absolute value, quadratic, exponential, polynomial, rational, and trigonometric functions. Placement in this course is based on a TEAM decision. This course takes place in a small group, structured setting with individualized accommodations and pacing.

**Personal Finance**

**572 (College Prep 2)**

This course will help students become knowledgeable consumers, workers, and citizens in a fast-paced economy. Students will investigate the stock market, learn marketing strategy, and money and banking policy. Using credit wisely is also a component of the course. This course incorporates the National Endowment for Financial Education's Financial Planning Program, where the goal is to help students learn how to responsibly and effectively manage their money for the rest of their lives. This course is also strongly recommended for students majoring in business. **Course can count for seniors as a 4th math if Algebra II has been completed but will not count towards the four-year college math requirement.**

**Math Analysis**

**273 (College Prep)**

This course is designed to help students review the main concepts needed so they will be able to advance to a college based math course. The goal is for every student to pass similar coursework to a Math 095 and Math 099





college class. Other topics covered will include functions (exponential, logarithmic, polynomial and trigonometric).

**Pre-Calculus**

**243 (College Prep)**

**244 (Honors)**

**Grades 11, 12**

**5 credits**

**02110**

Pre-calculus is the study of trigonometric, geometric, and algebraic techniques needed to prepare students for the study of calculus. This course strengthens students' conceptual understanding of problems and mathematical reasoning in solving problems. Each student must purchase their own graphing calculator for this course.

**Advanced Placement Calculus AB**

**255 (Advanced Placement)**

**Grades 12**

**5 credits**

**02124**

This course is designed for the advanced student who wishes to take the AP Calculus examination to receive college credit or placement. Topics to be covered are functions, limits and continuity, derivatives, applications of derivatives, and integration. Graphing calculators will be used extensively; each student must purchase their own graphing calculator for this course. Students enrolled in this course are required to take the Advanced Placement Examination. Colleges may give credit for this course, depending on the score achieved on the AP exam that is taken in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.

**Statistics**

**263 (College Prep)**

**Grades 11, 12**

**5 credits**

**02201**

This course is an introduction to college statistics. Topics include descriptive statistics, probability, discrete probability distributions, normal probability distributions, sampling distributions and confidence intervals. This course is word problem based and therefore it is preferred that students have good problem solving and reasoning skills. Students interested in degree programs in business, research, law, criminal justice, psychology, or economics should consider taking this course. Each student must provide their own graphing calculator for this course.

**Advanced Placement Statistics**

**265 (Advanced Placement)**

**Grade 10-12**

**5 credits**

**02203**

The AP Statistics course will introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: Exploring Data: Describing patterns and departures from patterns; Sampling and Experimentation: Planning and conducting a study; Anticipating Patterns: Exploring random phenomena using probability and simulation; and Statistical Inference: Estimating population parameters and testing hypotheses

Each student must purchase their own graphing calculator for this course. Students enrolled in this course are required to take the Advanced Placement Examination. Colleges may give credit for this course, depending on the score achieved on the AP exam that is taken in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.





**\*\*Students with a teacher recommendation can also take AP Statistics concurrently with Algebra II Honors sophomore year or with Pre-Calculus or Algebra II Honors concurrently junior year.**

**Advanced Placement Computer Science Principles  
725 (Advanced Placement)**

**Grades 10- 12  
5 credits  
10019**

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cyber security concerns, and computing impacts. AP Computer Science Principles will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. Colleges may give credit for this course, depending on the score achieved on the AP exam that is taken in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.

***Note: This class fulfills a course in Millbury High School's math requirements. However, some four-year colleges/universities may not consider this course as a math requirement. Students are highly encouraged to check with their prospective colleges/universities for specific admissions requirements.***

## **ADDITIONAL OFFERINGS**

**WIN Math 9/10  
0202 (College Prep)**

**Grades 9, 10  
2.5 credits  
22002**

This semester course is designed to help improve the computational and mathematical interpretation skills of students. The course content is aligned with the Massachusetts Curriculum Frameworks. The curriculum includes topics from the Framework strands of: Number Sense and Quantity; Relations and Algebra; Geometry; Statistics and Probability.

***Note: The credits for this course do not fulfill the school's math credit requirements for graduation.***



## Science, Technology, and Engineering

Careers in the Science Technology Engineering and Math cluster relate to planning, managing and providing scientific research and professional and technical services such as laboratory and testing services, and research and development services.

### Sample Careers:

- Electrical Engineers
  - Environmental Engineers
  - Industrial Engineers
  - Mechanical Engineers
    - Drafters
    - Microbiologists
  - Biological Scientists
  - Environmental Scientists
  - Agricultural Scientists
    - Physical Scientists
  - Chemical Technicians
    - Physicists
- +More



### Millbury Courses

#### Core

- Biology CP/H
- Chemistry CP/H
- Environmental Science CP/H
- Human Anatomy and Physiology CP/H
- Investigations in Biology and Chemistry CP
- Physics CP/H

#### Pathway

- PLTW Intro to Engineering Design CP (IED)
- PLTW Principles of Engineering CP

#### Advanced

- AP Environmental Science
- AP Biology\*\*
- AP Chemistry\*\*

\*\* Offered every other year

Take our [Career Clusters Assessment!](#)

[More Information](#)



### **Biology**

**323 (College Prep)**

**324 (Honors)**

This course is designed to prepare students for a college course in biology, to successfully complete the MCAS test in Biology and to understand and have an appreciation for how all organisms grow, reproduce, change and interact with other organisms. Our course is based on the Massachusetts Science Standards. The topics studied include: the chemistry of life, cell processes, genetics, evolution, and ecology. Laboratory work is an integral part of the course. Students will develop reasoning and problem solving skills and an understanding of current science related issues. Students are required to complete group and individual projects.

**Grade 9**

**5 credits**

**03051**

### **Chemistry**

**333 (College Prep)**

**334 (Honors)**

This course is designed to prepare students for college work in biology, chemistry, engineering or related majors. Our course is based on the Massachusetts Science Standards and the Next Generation Science Standards. The topics studied include: atomic theory, stoichiometry, chemical reactions, gas laws, and kinetic theory. Mathematical relationships are important in some topics. Laboratory work is an integral part of the course. Students will develop reasoning and problem solving skills and an understanding of current science related issues. Students are required to complete group and individual projects.

**Grades 10 -12**

**5 credits**

**03101**

### **Investigations in Biology and Chemistry**

**363 (College Prep)**

This lab-based full year course is designed to provide students with the opportunity to further develop the science practices essential for success in all fields of science. Science practices include asking questions, developing and using models, carrying out investigations, analyzing and interpreting data, using mathematical and computational thinking, constructing explanations and communicating information. Lab investigations will focus on topics in biology (specifically biotechnology) and chemistry and content is aligned with the Massachusetts Curriculum Frameworks. Teacher recommendation is required to take this course. Some factors considered when recommending students for this course include whether the student was able to successfully complete a full year of high school biology and whether students need more practice in the lab and with scientific calculations.

**Grades 10-11**

**5 credits**

**03002**

**Prerequisite: Student has taken Biology**

### **Physics**

**343 (College Prep)**

**344 (Honors)**

This course is designed to prepare students for college study in the core sciences: physics, biology, chemistry, medical fields such as premed, nursing, physical therapy, and engineering / technical programs. The course is based on the Massachusetts Science Standards and the Next Generation Science Standards. Topics studied include: mechanics, electricity, sound, light, energy and momentum. Students will develop reasoning and problem solving skills and an understanding of current science related issues. Students are required to complete group and individual projects.

**Grades 11, 12**

**5 credits**

**03151**



**Advanced Placement Biology**  
**325 (Advanced Placement)**

**Grades 11, 12**  
**5 credits**  
**03056**

AP Biology is the equivalent of a two-semester college introductory biology course, following the curriculum established by the College Board. The content is organized around four *big ideas*: Evolution, Energy, Information and Interaction between biological systems. The course builds upon knowledge developed in honors biology and chemistry courses, which are strongly recommended. This course requires that 25% percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices. Colleges may give credit for this course, depending on the score achieved on the AP exam that is taken in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.

**Advanced Placement Chemistry**  
**335 (Advanced Placement)**

**Grades 11, 12**  
**5 credits**  
**03106**

AP Chemistry follows the curriculum established by the College Board. It is taught on the level of an introductory college course. The course incorporates information from both biology and chemistry. Prior exposure to both is strongly encouraged. A solid math background, at least to the level of Honors Algebra II/Trig and good problem solving skills are essential. Students will need to spend time on extended activities outside the regular period for experiments and tests. Topics build on first year chemistry and add more depth to chemical bonding and stoichiometry, then continue with thermochemistry, gasses, solution chemistry, acid and base chemistry, chemical equilibrium, kinetics, and more. Colleges may give credit for this course, depending on the score achieved on the AP exam that is taken in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.

**Advanced Placement Environmental Science**  
**375 (Advanced Placement)**

**Grades 10 - 12**  
**5 credits**  
**03207**

AP Environmental Science is the equivalent of a one semester introductory college course in environmental science, following the curriculum established by the College Board. The course focuses on exploration and investigation of the interactions between living and nonliving parts of the natural world and analysis of complex problems, both natural and human made. The course offers experience in both the laboratory and field work. Content is organized into nine units: ecosystems, biodiversity, populations, earth systems and resources, land and water use, energy resources and consumption, atmospheric pollution, aquatic and terrestrial pollution, and global change. Colleges may give credit for this course, depending on the score achieved on the AP exam that is taken in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.

## **ADDITIONAL OFFERINGS**

**Human Anatomy and Physiology**

**Grades 10 -12**



**353 (College Prep)**

**354 (Honors)**

This course will study the human body with respect to the gross and microscopic anatomy of the organ systems as well as human body functions, including basic chemical composition and function of the cell. Homeostatic control systems and coordinated body functions are an area of focus. Laboratory work includes dissection of the fetal pig and appropriate isolated organs as well as physiology labs.

**Prerequisite: Student has taken Biology**

**5 credits**

**03054**

**Environmental Science**

**373 (College Prep)**

**374 (Honors)**

This course familiarizes students with the major environmental issues that confront us today, including their causes, effects and possible solutions. Course content provides students the opportunity to study environmental problems, to develop the ability to discuss and debate global issues in an informed and sensitive manner, and to research and present various environmental concerns and news to the class. Students will participate in community service by recycling bi-weekly. Research projects, oral presentations, and labs will be major components of the course.

**Grades 11 -12**

**5 credits**

**03003**

**PLTW Introduction to Engineering Design**

**724 (Honors)**

This course is part of the Project Lead the Way Program. Students are introduced to the engineering design process, applying math, science, and engineering standards to identify and design solutions to a variety of real problems such as improving on aerodynamic shapes, cleaning up oil spills, and designing functioning gear systems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course, and will learn to use a state of the art 3D Solid Modeling software system to develop, document and communicate those ideas to their peers and members of the professional community.

**Grades 9-12**

**5 credits**

**21018**

**PLTW Principles of Engineering**

**734 (Honors)**

This course is part of the Project Lead the Way Program. Using the Activity-Project-Problem style of learning, students explore a broad range of engineering topics, including: mechanisms, energy transfer, material properties, structural forces, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. Projects in class include Creating a Renewable Energy Production and Distribution Model, an Automatic Sorting Robot, Designing a Functional Bridge, among others!

**Grades 10-12**

**5 credits**

**21006**



## Social Studies

Workers in this career group research, analyze, record, and interpret the past as recorded in sources, such as government and institutional records, newspapers and other periodicals, photographs, interviews, films, electronic media, and unpublished manuscripts, such as personal diaries and letters.

### Sample Careers:

- Historian
- Politician
- Journalist
- Attorney
- Writers and Editors
  - Archivist
  - Researchers
- Museum technician
  - Geographer



### Millbury Courses

#### Core

- US History I CP2/CP/H
- US History II CP2/CP/H
- Themes of World History CP2/CP/H

#### Electives

- Law CP/H
- Psychology CP/H
- History through Film CP
- History of the Second World War CP
- Global History of the Cold War Era CP
- Current Events CP

#### Advanced Placement

- AP US History
- AP US Government and Politics
- AP Psychology

Take our [Career Clusters Assessment!](#)

[More Information](#)





**U.S. History I**  
**413 (College Prep)**  
**414 (Honors)**

**Grade 9**  
**5 credits**  
**04101**

This course will be a detailed conceptual analysis of American History from the 1750s through World War I. Students study major historical developments and their impact on contemporary society and on the individual. Map and globe reading, critical thinking, writing, research, and group-process skills are strengthened. Daily readings, Document Based Questions (DBQs), inquiry-based lessons, and homework will be required. One project will be required each term, using all methods of research.

**U.S. History I**  
**419 (College Prep 2)**

**Grade 9**  
**5 credits**  
**04101**

This course will be a detailed conceptual analysis of American History from the 1750s through World War I. Reading, research, essays, Document Based Questions, internet exploration and class presentations will be required. Placement in this course is based on a TEAM decision. This course takes place within a small-group setting, utilizing individualized accommodations and modifications.

**U.S. History II**  
**423 (College Prep)**  
**424 (Honors)**

**Grades 10**  
**5 credits**  
**04101**

This course will be a detailed conceptual analysis of American History from World War I to the present. Students study major historical developments and their impact on contemporary society and on the individual. Map and globe reading, critical thinking, writing, research, and group-process skills are refined. Daily readings, Document Based Questions (DBQs), inquiry-based lessons, and homework will be required. One project will be required each term, using all methods of research. This course will also require students to complete a Capstone Civics/Community Project.

**U.S. History II**  
**429 (College Prep 2)**

**Grades 10**  
**5 credits**  
**04101**

This course will explore a conceptual analysis of American History from World War I to the present. Students study major historical developments and their impact on contemporary society and on the individual. Map and globe reading, critical thinking, writing, research, and group-process skills are refined. Daily readings, inquiry-based lessons, and homework will be required. One project will be required each term using all methods of research including computer lab/internet. This course will also require students to complete a Capstone Civics/Community Project. Placement in this course will be determined by a TEAM decision. This course takes place within a small-group setting utilizing individualized accommodations and modifications.

**Themes of World History**  
**433 (College Prep)**  
**434 (Honors)**

**Grades 11**  
**5 credits**  
**04051**

The purpose of this course is to provide students with the conceptual framework and factual background to





understand issues going on in the world today. The course will also help them develop the research, writing, and thinking skills necessary to become informed global citizens who are able to take action. The course is organized thematically. In each unit students will: A) Develop a deeper understanding of themes and concepts that recur throughout history; B) Study at least one case study of this concept/theme in action – these case studies are drawn from the state frameworks; C) Conduct their own research on a current or historical event that highlights the same theme. The main themes/units of study are: 1. Democracy vs. Dictatorship, 2. World Religions, 3. Imperialism and Colonialism, 4. Communism and Capitalism, 5. Revolution, 6. Globalization. **The course will also include a Capstone Research Paper on the topic of "How can one event, person, or idea influence the world"?**

**Themes of World History**  
**439 (College Prep 2)**

**Grades 11**  
**5 credits**  
**04051**

The purpose of this course is to provide students with the conceptual framework and factual background to understand issues going on in the world today. The course will also help them develop the research, writing, and thinking skills necessary to become informed global citizens who are able to take action. The course is organized thematically. In each unit students will: A) Develop a deeper understanding of themes and concepts that recur throughout history; B) Study at least one case study of this concept/theme in action – these case studies are drawn from the state frameworks; C) Conduct their own research on a current or historical event that highlights the same theme. The main themes/units of study are: 1. Democracy vs. Dictatorship, 2. World Religions, 3. Imperialism and Colonialism, 4. Communism and Capitalism, 5. Revolution, 6. Globalization. Placement in this course is determined by a TEAM decision. This course takes place within a small group setting utilizing individualized accommodations and modifications.

**Advanced Placement U.S. History**  
**445 (Advanced Placement)**

**Grades 10 - 12**  
**5 credits**  
**04104**

AP U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. history course. In AP U.S. History students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and environment; and culture and society. The course prepares students for the required AP exam in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.

*\*This can fulfill the US History II graduation requirement or be taken as an elective.*

**ADDITIONAL OFFERINGS**

**Current Events**

**Grades 9-12**



**4123 (College Prep)**

**2.5 credits  
04106**

The goal of a current events course is for the student to become aware of the major issues of the day and to have an in-depth understanding and appreciation of current events. The focus of the class will be issues that affect the student as a resident of the World, the U.S., and Massachusetts. Each week, the class will focus on the historical development of a current issue. The objectives of this course are: to make the connection between current events and history, to enhance the student's understanding of world events, to encourage students to be informed citizens, and to help them to make intelligent decisions as they take their place in their respective communities. The course will be offered at the comprehensive level. Students will have writing assignments based on selected current topics.

**History through Film**  
**4353 (College Prep)**

**Grades 9-12  
2.5 credits  
04109**

In this class, students will study the role of Hollywood in how we interpret and view our history. This will be done through viewing, extensive writing, and discussing both historical and contemporary pieces on topics related to the political, social, economic, and racial history of the United States. Grouped thematically, students will examine the historiography of slavery, the Great Depression, the Holocaust, the Second World War, the Civil Rights Movement, and Vietnam. Besides examining these historical events, students will examine the legacy of racism, poverty, corruption, patriotism, civics, and ideology in contemporary American culture.

**History of the Second World War**  
**4483 (College Prep)**

**Grades 10-12  
2.5 credits  
04156**

This is a half-year course that explores the global history of World War II. We will begin with an in-depth study of its ideological origins, learn of its causes, follow its course, and ultimately analyze the conclusion and effects of the most violent upheaval in human history. Whereas most American students are familiar with the American perspective of this conflict, we will spend the majority of the topic exploring other theaters of war such as Eastern and Western Europe (including Germany and the USSR), East Asia (including China, Japan, and SouthEast Asia), and major powers and ideas of the day. There are no prerequisites for this course other than a good work ethic, a natural curiosity about the world, and a willingness to explore its drama and complexity.

**A Global History of the Cold War Era (1945 - 1991)**  
**4493 (College Prep)**

**Grades 10-12  
2.5 credits  
04156**

This is a half-year course that explores the global processes that shaped our world after World War II; most notably the Cold War between the United States and the Soviet Union, and how it affected the rest of the world. There are no prerequisites for this course other than a good work ethic, a natural curiosity about the world, and a willingness to explore its drama and complexity. Students who have taken the World War II elective may feel more comfortable with the subject matter at the beginning of the course than those who have not.

**Law**  
**443 (College Prep)**

**Grades 10-12  
5 credits**



**444 (Honors)**

**04162**

This course is designed to explore many areas of the law including those that deal with family, business, crime and consumer affairs. All will be examined through lecture, discussion, group work, and case studies. A major project will be a Mock Trial which will be the focus and preparation over several weeks. Short papers and Internet research will be required.

**Psychology**

**Grades 10-12**

**473 (College Prep)**

**5 credits**

**474 (Honors)**

**04254**

This course focuses on an introductory approach to the major concepts, theories, and methods of psychology. Topics include the history of psychology, research methods, brain function, memory, human development, and psychological disorders. Other topics will be discussed as time permits. This class will incorporate hands-on activities, group work, and multimedia resources in addition to more traditional classroom methods. The honors section will have additional writing assignments scheduled on a regular basis; including, but not limited to, an 8-10-page research paper.

**Advanced Placement Psychology**

**Grades 11,12**

**475 (Advanced Placement)**

**5 credits**

**04256**

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. The course prepares students for the required AP Psychology exam in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.

**Advanced Placement U.S. Government and Politics**

**Grades 10- 12**

**485 (Advanced Placement)**

**5 credits**

**04157**

The main purpose of this course is to foster an understanding of the American political system in order to create educated and informed citizens and to give students an analytical perspective on government and politics in the United States. The core curriculum is a hybrid design combining both the AP U.S. Government & Politics curriculum with the curriculum created by the Center for Civic Education, a nationally established government institution based out of Washington, D.C. The course also aligns itself with the curriculum prescribed by the Commonwealth of Massachusetts state Government frameworks. The course prepares students for the required AP exam in May. Cost of the test is \$96.00. A full payment must be given by the fourth week of class.



## Wellness, PE, and Family Consumer Science



Students will learn about wellness, nutrition, medicine, injury, disease, athletics, and many other topics.

### Sample Careers:

- Nutrition Coach
- Personal Trainer
- Athletic Trainer
- Physical Therapist
  - Coach
- Physical Education Teacher
- Public health Coordinator
  - Fitness Instructor
- Community Health Worker
- Occupational Therapist
  - Epidemiologist



### Millbury Courses

#### Core

- Freshman Health CP
- Wellness 9/10 CP
- Team Games CP
- Holistic Wellness CP
- Individual and Dual Activities CP
- Principles of Strength and Conditioning CP
- Unified PE CP

#### Electives

(These classes do not satisfy PE graduation requirements)

- Introduction to Kitchen Skills CP
- Advanced Kitchen Skills CP
- Regional and International Cooking CP
- Child and Family Studies CP

Take our [Career Clusters Assessment!](#)  
[More Information](#)



All of the physical education activities offered have an inherent risk for injury and participating in a safe manner is essential. Students are expected to abide by the following safety guidelines in ALL activity classes:

- Proper attire and footwear for full activity participation is required.
- Using equipment properly and safely
- Being aware of an individual's personal and physical space.
- Students must wear all protective and safety gear as required, ex. safety glasses during hockey.

## COURSE OFFERINGS

**Wellness 9/10**  
**8123 (College Prep)**

**Grades 9, 10**  
**2.5 credits**  
**08001**

During this course, students will explore components of physical health through a variety of activities including lifelong activities, holistic wellness, team sports and personal fitness activities. At the end of this course students should understand their personal strengths and weaknesses and be able to design and implement a plan to maintain a healthy lifestyle.

**Freshman Health**  
**8133 (College Prep)**

**Grade 9**  
**2.5 credits**  
**08051**

This health course will provide students with the knowledge and skills necessary to be safe and successful in today's fast-paced world. Students will work towards mastery of health skills such as analyzing influences, accessing valid health information, interpersonal communication, decision-making, goal setting, health-enhancing behaviors, and advocating for personal, family and community health.

**Team Games**  
**8313 (College Prep)**

**Grades 11, 12**  
**2.5 credits**  
**08002**

For students who have a passion for competition and athletics. By experimenting with a number of different team sports, students will be able to monitor their heart rates and assess their cardio progress. Students will apply concepts about sequential motor learning and development, biomechanics, exercise physiology, and sports psychology while taking into account sportsmanship and recognizing differences in the abilities of various students. This course will be offered in the first semester and will include traditional fall and winter sports like Football, Soccer, Volleyball, Basketball, floor hockey, team handball, and speedball.

**Holistic Wellness**  
**8333 (College Prep)**

**Grades 11, 12**  
**2.5 credits**  
**08052**



While adolescence is considered a very stressful time, in this course students will learn that stress can be both good and bad. Since stress can be mental, physical, social or spiritual, students will explore the physiological and psychological aspects and learn how to cope through time management, exercise, meditation and conflict resolution. Students will practice yoga, relaxation techniques, and other exercises designed to manage stress and control tension.

**Individual and Dual Activities**  
**8343 (College Prep)**

**Grades 11, 12**  
**2.5 credits**  
**08003**

Course will include instruction of skills and active participation in a variety of individual sports and cooperation games/activities that will harp on the importance of cooperation, teamwork, and good sportsmanship. This is a course that promotes sportsmanship and cooperation. Emphasis is also placed on the physical performance of learned skills and various approaches to the game. Archery, Golf, Table Tennis, Badminton, PickleBall, Disc golf, line dancing, track & field, lawn games, and winter recreation games. *(Course formerly known as Lifelong Activities)*

**Principles of Strength and Conditioning**  
**8353 (College Prep)**

**Grades 11, 12**  
**2.5 credits**  
**08005**

Through beginner, intermediate, and advanced training activities, students will apply basic fitness principles. This class will improve endurance, strength, and overall fitness levels of the students, better preparing them for a healthier lifestyle, and possibly a career requiring physical fitness. Walking, jogging, Tae-Bo, Yoga, kickboxing, pilates, weight lifting, Fitness Testing, couch to 5k running program, CrossFit, P90X, Insanity, HIIT, Tabata. *(Course formerly known as Individual Fitness) Max of 20 students*

**Unified P.E.**  
**8393 (College Prep)**

**Grades 9-12**  
**2.5 credits**  
**08049**

In this course, students will follow the model of Unified Sports where students of varying ability levels and backgrounds come together on equal terms through ongoing fitness, sports, leadership, and wellness activities. The Unified Physical Education course is structured around SHAPE America's National Standards and Grade-Level Outcomes for 9-12 Physical Education. Additionally, the class supports the development of leadership skills for all students as well as the empowerment of all students to foster an inclusive class and school-wide environment.

*Note: This class can be taken more than once to fulfill graduation requirements for PE.*

## **FAMILY /CONSUMER SCIENCE OFFERINGS**

**Introduction to Kitchen Skills**  
**8413 (College Prep)**

**Grades 9 -12**  
**2.5 credits**





**22201**

This course is designed to introduce the student to the basic principles of food preparation, including: understanding of food and kitchen safety and sanitation practices, basics of nutrition and healthy menus, food identification, basic culinary terminology and techniques, proper use of kitchen tools and equipment, elements of food preservation. Food labs and demonstrations play a significant role in the course.

**Advanced Kitchen Skills**  
**8423 (College Prep)**

**Grades 10 -12**  
**2.5 credits**  
**22202**

Students will build confidence in the kitchen by mastering the cooking techniques and skills necessary to plan and prepare basic, nutritious meal plans on their own. The course will follow the meals of the day as students learn to prepare and create recipes for various types of foods served at breakfast, lunch and dinner or for snacks. Students will showcase their kitchen management and culinary skills by participating in a Top Chef Competition for their cumulative activity.

*Prerequisite: Intro to Kitchen Skills*

**Regional and International Cooking**  
**8443 (College Prep)**

**Grades 11, 12**  
**2.5 credits**  
**22202**

Students in this class will take an imaginary foods tour of the world by preparing typical recipes from selected countries and culinary regions. In the process of this tour, the “travelers” will learn about the economical, historical, geographical and cultural factors that influence the food grown and eaten in each region they visit. Students will develop a broadened view of the world, a deeper understanding of other cultures, and a growing appreciation of ethnic cuisine. Students will showcase their kitchen management and culinary skills by participating in the Iron Chef Competition for their cumulative activity.

*Prerequisite: Intro to Kitchen Skills*

**Child and Family Studies**  
**8633 (College Prep)**

**Grades 10-12**  
**2.5 credits**  
**22204**

This course is designed to assist students in developing an understanding of the role and responsibilities of families and the process of human development. Emphasis is given to the development of skills and competencies related to parenting readiness, decision-making, pregnancy and childbirth, child growth and development, rights and responsibilities of families, providing nurturance and guidance techniques for promoting positive behavior, prevention of child abuse and neglect, and promotion of health and safety of children. The course includes videos and guest speakers. This course is recommended for those students who are interested in children or are considering a career in early childhood education, teaching, child psychology, and health and medical professions. Additionally, students will be eligible for a certification in CPR and First Aid.





## World Language



Workers who study Foreign Languages gain insight into the language, thought, and character of other cultures and an understanding of other parts of the world.

### Sample Careers:

- Translator/interpreter
  - Travel Agent
- Intelligence Analyst
- International Trade
- Public Administration
  - Tourism
  - Journalist
  - Linguist



### Millbury Courses

#### Core

- French I CP
- French II CP/H
- French III CP/H
- L'Experience Francaise H \*\*
- French Language and Composition H\*\*
  
- Spanish I CP
- Spanish II CP/H
- Spanish III CP/H
- Spanish Language and Culture H\*\*
- Spanish Language and Composition H\*\*

\*\* Offered every other year

Take our [Career Clusters Assessment!](#)

[More Information](#)



## COURSE OFFERINGS

**French I**  
**613 (College Prep)**

**Grades 9-12**  
**5 credits**  
**06121**

This course serves as an introduction to the French language and culture in which an integrated and communicative approach is utilized in order to develop skills in listening, speaking, reading and writing. Vocabulary dealing with greetings, numbers, colors, pronouns, verbs, school, the calendar, weather and family are covered. Grammatical structures such as present, past and future tenses, articles and plurals, negative and interrogative sentences, and adjective agreement are presented and used in real life contexts through a variety of activities encompassing all four skills. Awareness of the cultures of the francophone world is implicitly and explicitly included in the learning of French through continual thematic presentation of the people, their culture, their language and heritage.

**French II**  
**623 (College Prep)**  
**624 (Honors)**

**Grades 9-12**  
**5 credits**  
**06122**

This course is a continuation of the skills development begun in French I with a furthering of the students' ability to understand and to communicate within real life situations. Review of vocabulary and grammatical structures learned in French I along with exposure to new vocabulary, more verb tenses, and more grammatically complex concepts allow for further practice in the classroom, culminating in a wider variety of opportunities for personal expression. Culture remains an essential aspect of the course and is integrated within language instruction and through the presentation of videos, readings and discussion. Topics include, but are not limited to, the following: communicating in a restaurant; describing clothing and accessories; communicating in a store; the home; city life; and communicating in a hotel. The French II Honors course offers a more rigorous and in depth approach to the concepts covered throughout the course of the year.

**French III**  
**633 (College Prep)**  
**634 (Honors)**

**Grades 10-12**  
**5 credits**  
**06123**

This course has a balanced focus on listening, speaking, reading, and writing skills in French. Students will strengthen their understanding of vocabulary and grammar in order to communicate with developing accuracy and fluency. Students will be provided with diverse sources of input in the target language, such as dialogues, songs, and short literary or expository texts, among others. Topics include, but are not limited to, the following: physical descriptions of family and friends; preparations for parties and holidays in France and the francophone world; cooking and cuisine; daily life in school; and describing daily routines. The French III Honors course offers a more rigorous and in depth approach to the concepts covered throughout the course of the year.

**L'Expérience Française**  
**644 (Honors)**

**Grades 11,12**  
**5 credits**



**06125**

This course emphasizes the use of French language in a variety of contexts. The primary objectives of this course include the following: 1) the ability to understand different register of French language; 2) the mastery of vocabulary and linguistic structures to allow for comprehension of authentic text and realia written in French, including works of literature, videos, and infographics; 3) to communicate ideas orally in both conversational and formal settings with accuracy and fluency. Topics include, but are not limited to, the following: mealtimes, the environment, food waste, owning a pet, vacations and Le Petit Prince .

*\*\*Class will be offered every other year*

**French Language and Culture**  
**654 (Honors)**

**Grades 11, 12**  
**5 credits**  
**06125**

This course builds upon the vocabulary and grammar learned in all previous levels leading to improved oral and written communication. Students will master vocabulary and grammatical structures by engaging with a variety of texts (such as stories and poems, songs, and newspaper articles). In this course, students will be provided with multiple opportunities to negotiate meaning in a comprehensible manner with as much fluency and accuracy as possible. Topics include, but are not limited to, the following: childhood memories; nature; health and wellness; film, literature and television; travel.

*\*\*Class will be offered every other year*

**Spanish I**  
**663 (College Prep)**

**Grades 9-12**  
**5 credits**  
**06101**

This course serves as an introduction to the Spanish language and Hispanic culture in which an integrated and communicative approach are utilized in order to develop skills in listening, speaking, reading and writing. Grammatical structures such as the present tense of verbs, expressing likes and dislikes, as well as the concept of agreement are presented and used in real life contexts through a variety of activities encompassing all four skills. Vocabulary topics including numbers 1-100, the calendar, describing oneself and others, foods, activities, school topics and family are covered through written and oral expression exercises and activities. Awareness of the cultures of the Hispanic World are included in the learning of Spanish through continual thematic presentation of the people, their language and their culture through reading and writing activities as well as projects.

**Spanish II**  
**673 (College Prep)**  
**664 (Honors)**

**Grades 9-12**  
**5 credits**  
**06102**

This course is a continuation of the skill development begun in Spanish I with a furthering of the student's ability to understand and communicate within real life situations. Review of vocabulary and grammatical structures learned in Spanish I along with exposure to new vocabulary, more verb tenses and more complex grammatical concepts allow for further practice in the classroom culminating in a wider variety of opportunities for personal expression. Vocabulary is enhanced by the study and use of themes of household and chores, foods and meals, health and body, clothing and shopping, holidays and parties, and travel. Grammatical accuracy is enhanced by the use of negation, object pronouns and commands. Verb study includes regular verbs, irregular verbs, and reflexive



verbs in the present tense, past tense, and present progressive tense, as well as various verb use comparisons.

Culture remains an essential aspect of the course and is integrated within language instruction and through the presentation of videos, readings and discussion. The Spanish II Honors course offers a more rigorous and in depth approach to the concepts covered throughout the course of the year.

**Spanish III**

**683 (College Prep)**

**674 (Honors)**

**Grades 10-12**

**5 credits**

**06103**

This course provides an intensive review and refinement of vocabulary and grammatical concepts learned in the initial introductory Spanish courses. Additional vocabulary and grammatical concepts are presented and practiced contextually. The functional use of the language is stressed and opportunity for personal open-ended expression is maximized within class time. Vocabulary is enhanced by the study and use of vocabulary related to the themes of jobs and professions, places around the town or city, injuries and medical treatment, daily routine, and childhood games and activities. Grammatical accuracy is enhanced by the fine tuning of verbs in the appropriate present, past and future tenses, as well as by the use of indirect object and reciprocal pronouns, formal commands, and past participles used as adjectives. Culture remains integrated in daily lessons and through readings and short stories throughout the year. The Spanish III Honors course offers a more rigorous and in depth approach to the concepts covered throughout the course of the year.

**Spanish Language and Culture**

**684 (Honors)**

**Grades 11, 12**

**5 credits**

**06104**

This course builds upon the vocabulary and grammar learned in all previous levels leading to improved oral and written communication. Students will grasp language structures by engaging with a variety of texts, such as stories, songs, and articles. In this course, students will be provided with multiple opportunities to negotiate meaning in a comprehensible way with as much accuracy as possible. Topics include, but are not limited to, leisure and travel activities, childhood memories, friendships and relationships, and historical figures and events.

**\*\*Class will be offered every other year**

**Spanish Language and Composition**

**694 (Honors)**

**Grades 11, 12**

**5 credits**

**06109**

This course emphasizes the use of Spanish language in a variety of contexts. The primary objectives of this course include the following: 1) the ability to understand different registers of Spanish language; 2) the mastery of vocabulary and linguistic structures to allow for comprehension of authentic conversation, text, and realia in Spanish; and 3) to communicate ideas in both conversational and formal settings with accuracy and fluency. Topics include, but are not limited to, the following: current events, family gatherings and relationships, food, visual arts and music, and historical events and themes.

**\*\*Class will be offered every other year**



***American Sign Language I***  
***VHS693 (College Prep)***

***Grades 9-12***  
***5 credits***  
***06109***

Sign languages are some of the most expressive and unique of all the World Languages. In this introductory course, you will embark on an exciting journey that will provide you with not only a basic level of proficiency in the most widely used sign language, American Sign Language (ASL); this course will also open a profound window of understanding into the world of Deaf culture and history. Regardless of whether you are already in some way connected to that culture, or whether you have had little-to-no contact with Deaf people, you will deepen your appreciation for this rich and dynamic community. Through selected readings, visual recordings, and interactive activities online, students will receive instruction in production, comprehension, vocabulary, and grammar to build skills in ASL. In order to demonstrate ability in signing skills, students will sometimes be asked to record videos of themselves signing to submit to their instructors. Students will also build their knowledge and understanding about Deaf culture and history. This course adheres to the World Readiness Standards for Language Learning to ensure that students develop competence to communicate effectively and interact with cultural understanding of the Deaf community.

*Note: This class is offered online through our membership with Virtual High School*





## Innovative Pathways

The Innovation Pathways Program was developed to help expand career field exploration through technical education within Millbury Memorial Jr./Sr. High School. Students participating in the program will experience an in depth look at a career field of their interest, gain industry recognized credentials in that area, engage in college and career planning activities, take college-level classes in preparation for career advancement, and enhance their experience through an internship or a capstone project.

Innovation Pathways are provided at no cost to the students provided there is adequate grant funding from the state of Massachusetts. Our pathways are Information Systems (Computer Science) and Advanced Manufacturing.

Our Pathway courses start in grade 9 but can be entered as a grade 10 student. All students must apply to the program using this [application](#). This year we will be accepting applications through June of 2023. What does the Innovative Pathway courses do for me (the student):

- Provides students with opportunities to merge academic programming with advanced technical courses in various industries recognized to be in demand in our immediate geographical location.
- Provides students with authentic learning experiences connected with industry partners that align to students post-secondary plans.
- Provides intentional curriculum design which provides students with opportunities for industry-recognized credentials and the necessary skills to support working in industries of the future.





## Innovative Pathways

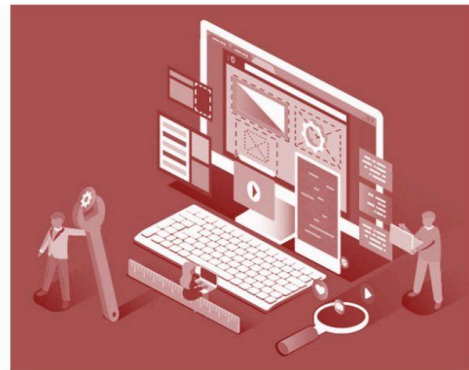


Innovation Pathways are designed to give students coursework and experience in a specific high-demand industry. Innovation Pathways are designed to create strong partnerships with employers in order to expose students to career options and help them develop knowledge and skills related to their chosen field of study before they graduate high school.

### Information Systems (Computer Science)

#### Innovative Pathway Technical Courses

- PLTW Intro to Engineering Design (IED)
- PLTW Computer Science Essentials (CSE)
- Intro to Web Design



### Manufacturing Innovative Pathway Technical Courses

- PLTW Intro to Engineering Design (IED)
- PLTW Principles of Engineering (POE)
- PLTW Computer Integrated Manufacturing (CIM)
- PLTW Engineering Design and Development (EDD)



*EDD Course can fulfill capstone requirement*





## Innovative Pathway Course Descriptions

**PLTW Introduction to Engineering Design**  
**724 (Honors)**

**Grades 9-12**  
**5 credits**  
**21018**

This course is part of the Project Lead the Way Program. Students are introduced to the engineering design process, applying math, science, and engineering standards to identify and design solutions to a variety of real problems such as improving on aerodynamic shapes, cleaning up oil spills, and designing functioning gear systems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course, and will learn to use a state of the art 3D Solid Modeling software system to develop, document and communicate those ideas to their peers and members of the professional community.

**PLTW Principles of Engineering**  
**734 (Honors)**

**Grades 10-12**  
**5 credits**  
**21006**

This course is part of the Project Lead the Way Program. Using the Activity-Project-Problem style of learning, students explore a broad range of engineering topics, including: mechanisms, energy transfer, material properties, structural forces, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. Projects in class include Creating a Renewable Energy Production and Distribution Model, an Automatic Sorting Robot, Designing a Functional Bridge, among others!

### Information Systems (Computer Science)

**PLTW Computer Science Essentials**  
**714 (Honors)**

**Grades 9 or 10**  
**5 credits**  
**10013**

In Computer Science Essentials, students will use visual, block-based programming and seamlessly transition to text-based programming with languages such as Python to create apps and develop websites, and learn how to make computers work together to put their design into practice. They'll apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them.



## Advanced Manufacturing

**PLTW Computer Integrated Manufacturing**  
**744 (Honors)**

**Grades 11 or 12**  
**5 credits**  
**21022**

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

**PLTW Engineering Design and Development**  
**754 (Honors)**

**Grade 12**  
**5 credits**  
**21025**

The knowledge and skills students acquire throughout PLTW Engineering come together in Engineering Design and Development as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing Engineering Design and Development ready to take on any post-secondary program or career.

## Internship/Externship

**Innovative Pathway Internship/Externship**  
**750 (Honors)**

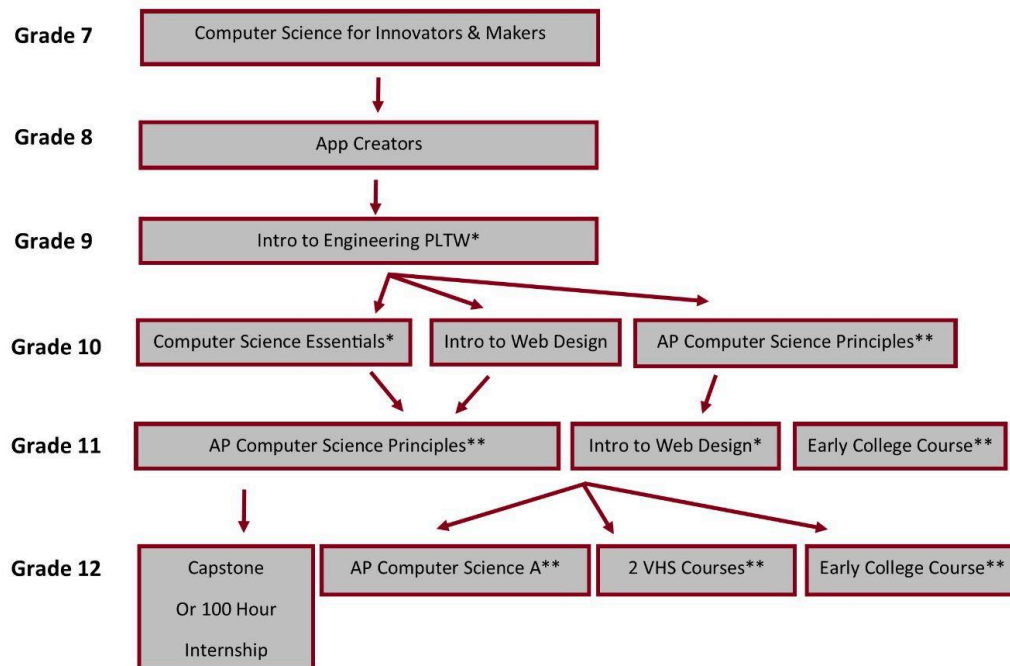
**Grade 12**  
**up to 10 cr.**  
**22153**

This is the culminating experience for all Innovative Pathway students to end their high school career by gaining hands-on and real world experience. Students will complete a minimum of 100 hours. Internship supervisors will be contacted by our Tech Prep coordinator regularly to monitor student progress.



## Innovative Pathway – Information Systems (Computer Science)

All course recommendations are made assuming successful completion of the student's current courses and are based on performance, effort, and staff recommendations.



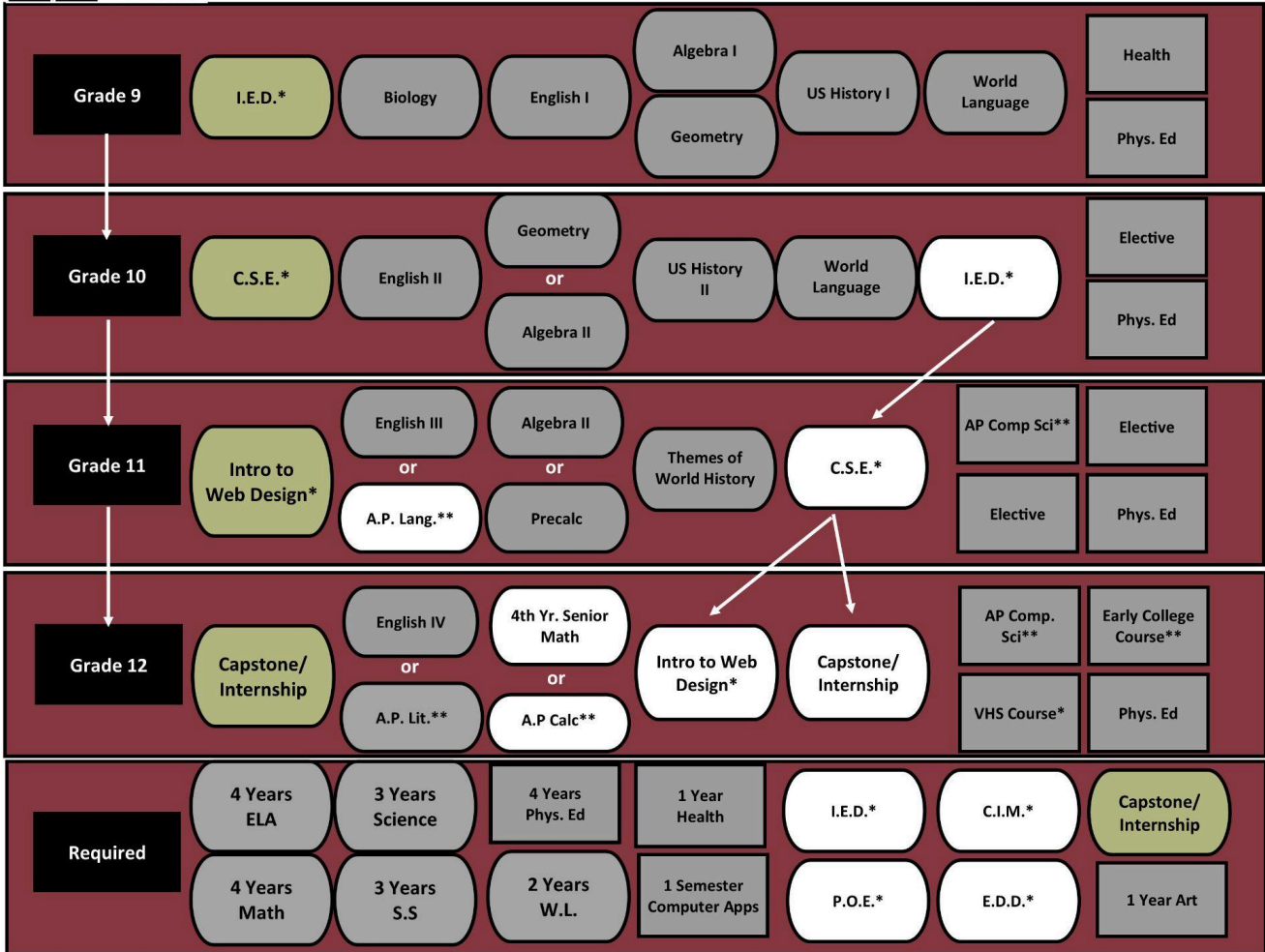
Taking any combination of 2 of the 4 technical offerings here satisfies the technical course requirement for the innovative pathways. Students will still need 2 additional advanced courses as well as a 100 hour internship and/or capstone project to receive designation of completing the innovative pathway programming.

\* Technical Courses  
 \*\* Advanced Courses



### Information Systems (Computer Science) Innovations Pathway

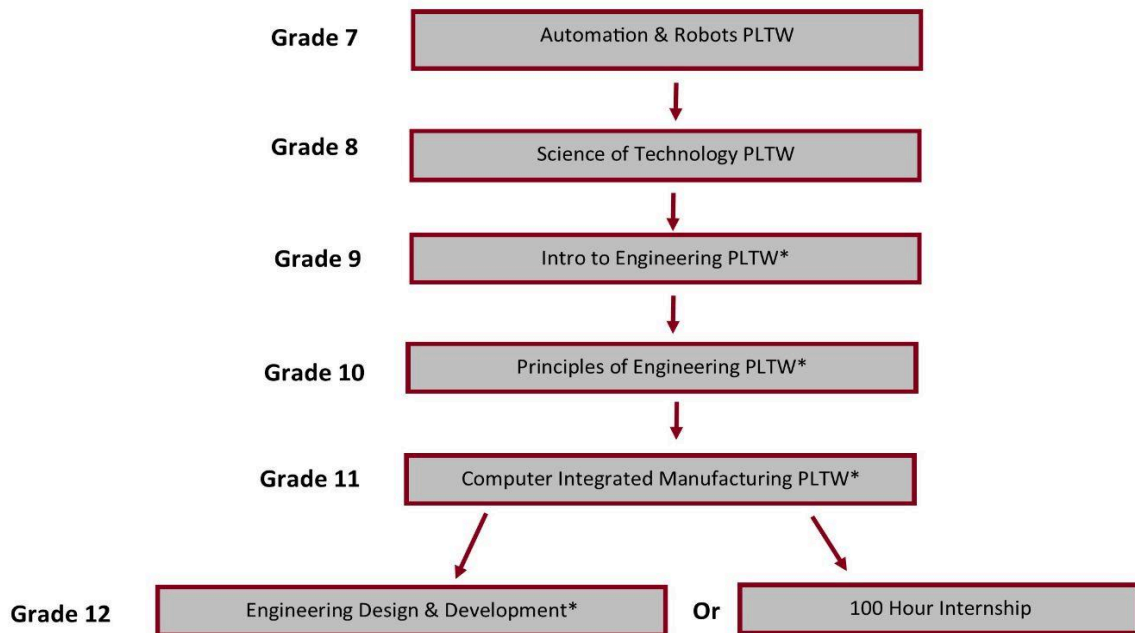
Pathway Core	Pathway Elective
--------------	------------------





## Innovative Pathway – Manufacturing

All course recommendations are made assuming successful completion of the student’s current courses and are based on performance, effort, and staff recommendations.

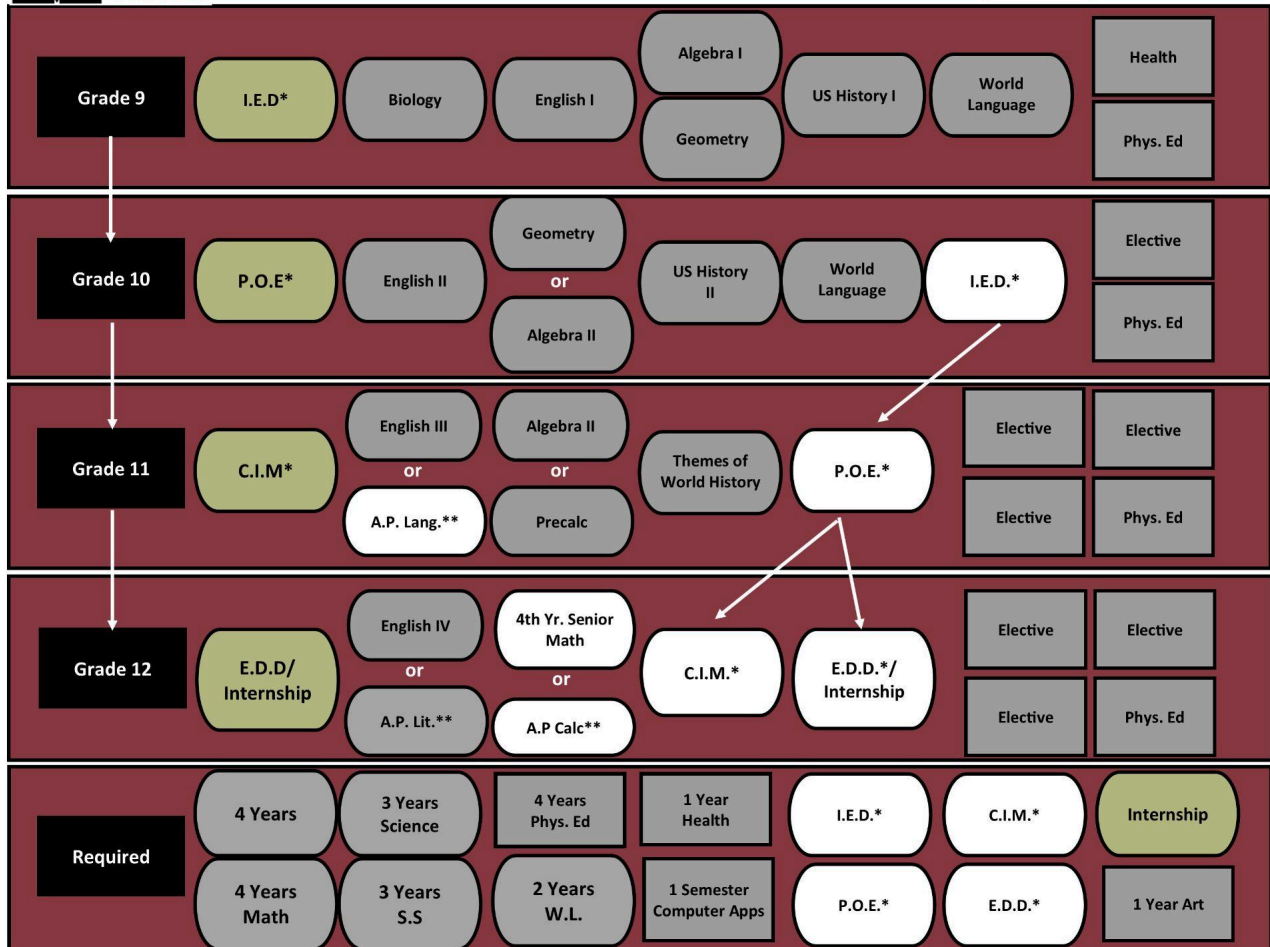
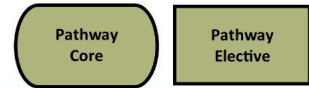


Taking any combination of 2 of the 4 technical offerings here satisfies the technical course requirement for the innovative pathways. Students will still need 2 additional advanced courses as well as a 100 hour internship and/or capstone project to receive designation of completing the innovative pathway programming.

\* Technical Courses  
\*\* Advanced Courses



## Manufacturing Innovations Pathway







## Partnership with North Atlantic States Carpenters Training Fund Millbury, MA



The United Brotherhood of Carpenters of America and Joiners of America offers curriculum via Career Connections. This program not only teaches important hands-on skills for all students, but it gives students a direct pathway to a career in Construction.

Shop Fridays is a first step as a way to introduce interested students to the program. NASCTF invites students to attend a Hands-On WorkShop in one of our area training centers. Students work with one of our Top Notch instructors learning commercial construction and what it takes to be a Union carpenter. Open to students in grades 10 and 11.

In grades 11 and 12, after participating in at least one semester of Shop Fridays, students can participate in the pre-apprenticeship program. In grade eleven, students will still be taking the required core content classes to meet graduation requirements. In grade twelve, students participating in apprenticeship will use their hours in the shop as elective and internship credits that will be taken in addition to their remaining graduation requirements (usually English, math and PE).

### **Math for Trades** **242 (College Prep 2)**

**Grade 12**  
**5 credits**  
**02051**

The *Math for Trades: Volume 1* textbook is an open source textbook, freely available online. *Math for Trades: Volume 1* introduces the building blocks for math which will ready students for more advanced math needed to continue their trades education. The book includes whole numbers, fractions, decimals, and percents, all contextualized to different trades, thereby also introducing relevant vocabulary and scenarios.

*This class will meet a graduation requirement for a fourth year of math for students in the apprenticeship program. It does not meet the college preparatory requirement for a four year college.*





## ADDITIONAL OFFERINGS

### **AP Resource Lab** **101 (College Prep)**

**Grades 11, 12**  
**0.0 credits**

The primary goal for this class is for students to engage productively in academic/curriculum related activities. Students must adhere to the guidelines in order to remain in this course. A teacher will be available to monitor students in a classroom setting.

Eligibility requirements are as follows:

- Must be a **junior or a senior** enrolled in **two or more AP classes** in their schedule for that academic year
- Students must be in good academic standing, which includes:
  - A GPA of **3.0 or above** (if you are unsure of your updated GPA, please reach out to your counselor for that information)
  - Student must be on track for graduation requirements (no failed classes)
  - Student must strictly adhere to the attendance policy

*\*This class will be offered on a semester basis **only** and during a specific block(s). Please note that students are only able to take this class once per academic year (i.e., they cannot take it both fall and spring semester of either given academic year). This is a non-credit bearing course, hence the importance of being on track for graduation. If a student wishes to enroll in this course, approval must be given by their respective counselor. Exceptions will not be made. Parents should give permission to the counselor so the student can participate as this class is not credit-bearing.*

### **Millbury Jr/Sr High School Help Desk Internship**

**Grades 10-12**

The independent Help Desk course is a hands-on study of technology integration in an educational setting. Students will be required to assess problems and define the best approach to addressing or solving them. In addition to solving problems for students and teachers, students will be required to complete and maintain several ongoing projects that address problems or solutions using technology.

The course requires that students have a prior understanding of Basic Hardware, Basic Networking, iOS, Microsoft Windows, ChromeOS, and Google Workspace. Students will be encouraged to take certification exams in areas of interest. See a guidance counselor for more information.

## Online Learning / [Virtual High School](#)

72

*\*Academic Curiosity and Growth\* \*Respect & Responsibility\* \*Citizenship\* \*Independent, Lifelong Learners\**

*Millbury Memorial Jr. /Sr. High School Core Value*



The VHS collaborative provides online learning opportunities that reinforce the full range of 21st century skills today's students need to succeed. In every VHS course, students use wikis, blogs, and other tools in their daily academic work. They discuss, debate, analyze, and create with classmates through group projects and assignments. They practice global citizenship as they work and share ideas with a diverse group of students in a global classroom. Students leave each VHS course better prepared academically, technologically, and globally to face the challenges of college and work in a 21st century world.

VHS courses span virtually all disciplines at all academic levels. VHS students should be independent learners who can budget their time effectively, enjoy working independently and want to use current information and communication technologies. Students have a designated class time as they would with any other elective. The following parameters are a guideline for VHS high school level courses:

- A standard (College Preparatory) level class requires students to be actively engaged in their coursework for approximately 6 - 8 hours per week.
- An honors level class requires students to be actively engaged in their coursework for approximately 8 - 10 hours per week.
- An AP level class, requires students to be actively engaged in their coursework for approximately 10 - 12 hours per week.

## ACADEMIC POLICIES

**Student Responsibilities** - To help students have a successful VHS experience, students are responsible for knowing and adhering to the policies and procedures that are described below. These policies are also outlined for students in the VHS student orientation.

**Attendance** - VHS students are expected to attend and participate in their course(s) as fully as they would attend and participate in a traditional classroom course. All assigned work should be completed in a timely fashion, and students must actively participate in course discussions. At an absolute minimum, students are required to log-in and perform work in their course(s) three times per week. Ideally, students will access their VHS classes each day.

In cases of extended student absence due to illness (five days or more), the site coordinator, or the student's parent/guardian, may contact the course teacher directly to notify the teacher of any delay in providing assigned work. It is the responsibility of the student to make up work missed due to absence. Unless there are extenuating circumstances, work should be made up within one week of the student's return to class. Credit for makeup work is at the discretion of the course instructor.



A student who neglects coursework, or has excessive or unexcused absences may be required to withdraw from the course. Required withdrawal from a course is equivalent in all respects to failing it; the student is assigned a grade of WF (withdrawal fail) and earns no credit for the course. In cases of extended absence due to illness (two days or more), the student, or the student's parent/guardian, should notify the teacher directly of any delay in providing assigned work. It is the responsibility of the student to make up work missed due to absence.

**Academic Honesty** - All work submitted to meet course requirements is expected to be the student's own work. A student suspected of academic dishonesty in any form is subject to review and disciplinary action by VHS. Disciplinary action may result in termination from the course.

**Acceptable Internet Use Policy** - All students participating in VHS are expected to conduct their communications in a professional, respectful manner. The use of proper Internet etiquette is expected at all times. Inappropriate language or behavior will result in disciplinary action and possible termination from the course at the discretion of VHS.

**Anti-Harassment Policy** - VHS is committed to safeguarding the right of all individuals involved in VHS to work and learn in an environment that is free of harassment. Harassment on the basis of race, color, ancestry, religion, national origin, age, sex, sexual orientation, or disability in any form will not be tolerated and may result in termination from the course.

**Student Discipline** - As in any classroom, the VHS teacher will attempt to address discipline problems directly with the student prior to referring the student to VHS. If the instructor is unable to resolve the problem, or if the infraction is such that it requires administrative notification, the teacher will contact VHS and appropriate disciplinary action will be taken.

**Grades** - There is a common grading scale for all courses offered by VHS. Grades range from A+ (100%) for excellent work to F (59% or below) for work that does not meet the minimum requirements of the course. Your current grade average will be available in your course each week and your final grade will be available in your course and be sent to you via email.

**Check out Virtual High School by visiting the website at <http://thevhs collaborative.org/catalog> and access a demo net course. You can also talk to Mrs. Flaherty, our librarian/VHS site coordinator, or your school counselor for more information.**



# mefa pathway

YOUR PLAN  
FOR THE FUTURE<sup>SM</sup>

Millbury Jr. Sr High is pleased to share with you its intended utilization of MEFA Pathway *Your Plan for the Future* for this upcoming school year.

MEFA Pathway is an online comprehensive college and career planning resource for students and educators across the Commonwealth. The tool is offered to all middle and high schools in Massachusetts free of cost by MEFA, the Massachusetts Educational Financing Authority. MEFA Pathway plays a key role in the Commonwealth's efforts toward college and career readiness and success by increasing access to information about higher education and career opportunities for all types of students.

Rather than a one-size-fits-all approach to future planning, MEFA Pathway is tailored to meet the needs of the Commonwealth's diverse student populations by offering comprehensive tools in one easily accessible website. MEFA Pathway prepares students for all facets of post-secondary success through a platform where students can discover interests, values, and skills, manage course plans, search for colleges, and explore careers. When students begin to navigate the college application and financial aid processes, MEFA Pathway ensures they stay on track with reminders of key milestones and deadlines along with leveraging tools that help students compare colleges, search for scholarships, and learn the net cost of different schools.

We're excited to continue to extend this program to our students and families during the 2020-21 school year. It is our goal to provide every student with an opportunity to successfully manage their education and launch their post-secondary plans.

P.S. Watch the [How It Works](#) video to get a quick overview of MEFA Pathway.



## Senior Course Selection Form

Name: \_\_\_\_\_

Postsecondary Goal: \_\_\_\_\_

Graduation requirements should be reviewed before selecting classes. **Every student is required to take 35 credits.** If you were not recommended for a course and still wish to take it, the student must follow through with the Course Waiver form.

Course	Course #	Course Name	Level	Credits/ Term (FY or Sem)	Alternate(s)
English				5 / FY	
Math				5 / FY	
Phys. Ed.				2.5/Sem	
Elective				2.5/Sem	
Elective					
Elective					
Elective					
Elective					
Elective					
Elective					
Elective					
Elective					
Elective					

**Total**

Notes on Recommendations: \_\_\_\_\_

Please refer to the Program of Studies for course descriptions, graduation requirements and for college admission requirements. Academic electives are always encouraged.

**Student Signature:** \_\_\_\_\_



Counselor Signature: \_\_\_\_\_

### Junior Course Selection Form

Name: \_\_\_\_\_

Postsecondary Goal: \_\_\_\_\_

Graduation requirements should be reviewed before selecting classes. **Every student is required to take 35 credits.** If you were not recommended for a course and still wish to take it, the student must follow through with the Course Waiver form.

Course	Course #	Course Name	Level	Credits/ Term (FY or Sem)	Alternate(s)
English				5 / FY	
Math				5 / FY	
Science**				5 / FY	
World History				5 / FY	
Phys. Ed.				2.5 / Sem	
Elective				2.5 / Sem	
Elective					
Elective					
Elective					
Elective					

Total

Notes on Recommendations:

\_\_\_\_\_  
\_\_\_\_\_

Please refer to the Program of Studies for course descriptions, graduation requirements and for college admission requirements. Academic electives are always encouraged.

Student Signature: \_\_\_\_\_

Counselor Signature: \_\_\_\_\_



# Sophomore Course Selection Form

Name: \_\_\_\_\_

Postsecondary Goal: \_\_\_\_\_

Graduation requirements should be reviewed before selecting classes. **Every student is required to take 35 credits.** If you were not recommended for a course and still wish to take it, the student must follow through with the Course Waiver form. A semester of Computer Applications is a graduation requirement if it was not taken already\*

Course	Course #	Course Name	Level	Credits/ Term (FY or Sem)	Alternate(s)
English				5 / FY	
Math				5 / FY	
Science**				5 / FY	
US Hist. II				5 / FY	
Wellness 9/10				2.5 / Sem	
Comp. Apps*				2.5 / Sem	
World. Lang.				5 / FY	
Elective					
Elective					

Total

Notes on Recommendations:

\_\_\_\_\_  
\_\_\_\_\_

Please refer to the Program of Studies for course descriptions, graduation requirements and for college admission requirements. Academic electives are always encouraged.

**Student Signature:** \_\_\_\_\_

**Counselor Signature:** \_\_\_\_\_





# Freshman Course Selection Form

Name: \_\_\_\_\_

Postsecondary Goal: \_\_\_\_\_

Graduation requirements should be reviewed before selecting classes. **Every student is required to take 35 credits.** If you were not recommended for a course and still wish to take it, the student must follow through with the Course Waiver form.

Course	Course #	Course Name	Level	Credits/ Term (FY or Sem)	Alternate(s)
English				5 / FY	
Math				5 / FY	
Biology				5 / FY	
U.S. Hist. I				5 / FY	
Wellness 9/10				2.5 / Sem	
Health				2.5 / Sem	
World. Lang.				5 / FY	
Elective					
Elective					

Total

Notes on Recommendations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Please refer to the Program of Studies for course descriptions, graduation requirements and for college admission requirements. Academic electives are always encouraged.

**Student Signature:** \_\_\_\_\_

**Counselor Signature:** \_\_\_\_\_