MILTON HIGH SCHOOL



PROGRAM OF STUDIES 2016-2017

PROGRAM OF STUDIES TABLE OF CONTENTS

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I.

GENERAL INFORMATION

MESSAGE TO PARENTS AND STUDENTS

Please read the information in this *Program of Studies* carefully before selecting next year's courses. This should ensure a smooth start to the school year next September. We also ask students and parents to work together in outlining a four-year course of study. Our course offerings are extensive, balanced, challenging and designed to meet the educational needs of all students. We strongly suggest that parents and students consult with guidance counselors and teachers when planning either a one-year or four-year program of study.

Browse through the various sections of this booklet. In March, students will receive a *Course Selection Sheet* listing the courses and levels which students have been recommended for by their current teachers. Students will be asked to add their elective courses, have a parent review and sign the sheet, and return it to their counselor. Questions concerning level recommendations should be directed to the teacher who made the recommendation. Parental approval of the choices is important. Delays in returning the course selection sheet with the parents' signature may result in reduced options and the closing of some courses.

In April, students will receive a *Course Verification Sheet*. Parents and students should check the sheet to see that the courses and levels are correct. It is important that the verification sheet be returned to students' guidance counselors promptly if changes are desired.

Choosing high school courses is a major decision for all students. A good rule to follow is that students should take the **most** challenging and encompassing program appropriate to graduation requirements, their abilities and interests. Abilities can be assessed from prior performance, teacher evaluations, report card grades, various evaluative instruments and the ongoing discussion with their counselor and faculty advisor.

Choosing appropriate courses should be a very reflective process. It requires students to think about their strengths and challenges, what has worked and hasn't worked, and what goals they wish to achieve in the next year. We have found it to be helpful for students to go through this exercise with their parents before the conversation of "Which course should I take?" occurs. The amount of work a student is ready to commit to should be a healthy compliment to any extra curricular activities he or she wants to maintain.

Taking a core academic program which includes English, mathematics, science, social studies, world language, fine and practical arts, and other offerings each year provides both rigor and balance to a good learning program. Graduation requirements address some of these issues. Earning good grades and adhering to these guidelines are likely to provide all students with quality options when they graduate. Students should consider their course selections very carefully since it may be difficult to change courses after choices have been made and verified during the spring.

What courses students take, how students use their time, and how well students do in high school will have a great effect on the kinds of choices available to them after graduation. Thus, we remind you again that before finalizing choices for classes next year, students should consider graduation requirements and consult with parents, current teachers and guidance counselors.

Karen Cahill, Director of Guidance

MISSION

The mission of Milton High School is to graduate students who are equipped to reach their potential and contribute to the global community by engaging them in a rigorous, enriching educational program that emphasizes respect, achievement, and citizenship.

BELIEFS

We believe that:

- 1. Each individual shares a responsibility to further the well being of the community.
- 2. The support of the community, communication between school and community, and active parental involvement are components of a successful school.
- 3. Experiencing diversity enriches human growth and promotes tolerance and respect.
- 4. All rights have corresponding responsibilities and each person is responsible for his or her decisions.
- 5. Students and faculty are entitled to a safe, secure and healthful environment.
- 6. Each child has unique positive qualities, interests, and talents that should be appreciated and fostered.
- 7. Students should exhibit proper behavior on and off school grounds.
- 8. Learning is not restricted to classrooms or schools.
- 9. High achievement requires high expectations.
- 10. The core curricula provide students with the means to reach their potential.
- 11. Classroom learning should challenge each student.
- 12. Every teacher should use a variety of strategies to help all students succeed.

EXPECTATIONS FOR STUDENT LEARNING

All Milton High School graduates will:

Academic Expectations

- 1. Effectively apply critical thinking skills to solve problems
- 2. Communicate skillfully and effectively through oral, written, visual and technological means
- 3. Apply tools and technology to a variety of authentic tasks
- 4. Demonstrate connections between and among subjects to enhance understanding of the work
- 5. Demonstrate originality through individual and collaborative work

Social and Civic Expectations

- 6. Demonstrate good citizenship, personal responsibility and character through individual and collective actions
- 7. Demonstrate understanding and respect for the diversity of ideas, cultures, abilities and lifestyles in the school and beyond

GRADUATION REQUIREMENTS

1. All students need to accumulate 120 credits for graduation.

To be considered a Class of 2017 senior and to participate in senior class activities during the 2016-2017 school year, a student must have earned a minimum of 85 credits. Students who have not completed all their graduation requirements one school day after the last final examination will not be allowed to participate in the graduation ceremony. (For junior status, a student must have earned a minimum of 55 credits; sophomore status - a minimum of 25 credits).

2. Subjects and specific credits required for graduation:

English - four years (I, II, III, IV)	20 credits
Mathematics - four years	20 credits
Science - three years	15 credits
Social Studies - three years (including US I & US II)	15 credits
Physical Education/Health - four years	10 credits
Fine Arts or Applied Arts	5 credits
**Technology Essentials	2.5 credits
Speech	2.5 credits
Community Service	140 hours

*Starting with the class of 2020, Technology Essentials as a graduation requirement will be replaced by a Technology Course requirement; any of the following technology courses would satisfy this requirement: Tech Essentials, Computer Technology, Computer Science, Robotics, Intro to Computer Science, AP Computer Science, AP Computer Science Principles, MHS Wildcat News, or TV Production.

3. Massachusetts requires all high school students to pass a series of standardized tests in English, math and science as a condition of graduation. The tests, called the Massachusetts Comprehensive Assessment System (MCAS), have been phased in since 1993.

In both English and Language Arts, students must meet or exceed the Proficient scaled score of 240 on the 10th grade MCAS tests, or meet or exceed the Needs Improvement scaled score of 220 on the tests and fulfill the requirements of an Educational Proficiency Plan. In science, students must score at least a scaled score of 220 on one of the Biology, Chemistry, Introductory Physics, or Technology/Engineering MCAS tests.

- 4. All students must schedule a program of study with 35 credits each year.
- 5. Course Credits: Courses that meet one period daily for the full year receive 5 credits; courses that meet one period daily for one half the year (one semester) receive 2.5 credits.
- 6. Failure in courses required for graduation is a serious matter. Such courses and the associated credits may be earned by successfully completing a MHS Summer Course, if available, or by taking and passing a comparable summer school course, or by taking and passing a comparable day-school or evening-school course (see the Director of Guidance for approval) or by retaking and passing the course at Milton High School the next school year (see your guidance counselor).

Milton High School reserves the right to schedule students based on course enrollment, conflicts, graduation requirements, staffing, and other relevant considerations.

LEVELING GUIDELINES

Students' skills, abilities and achievement vary. Course levels are designed to maximize each student's potential by presenting challenging course work at an appropriate level and pace. We expect each student to acquire knowledge and develop skills in courses that are appropriately rigorous and challenging. As part of the course selection process, teachers will make level recommendations for students in English, mathematics, science, social studies and world language classes. Parents are strongly encouraged to discuss level recommendations with your child's teacher before requesting level changes.

ADVANCED PLACEMENT AP

Advanced Placement (AP) courses, available to juniors and seniors, are college-level classes. Extremely demanding and fast paced, AP classes require extensive homework. Students should seek guidance from their parents, counselors, and current teachers before finalizing their decision to elect any AP class. All students in Advanced Placement courses are required to take The College Board's AP examination in the spring. Any *student* who does not take the AP exam at the conclusion of the course will receive Honors, **not** AP credit on their transcript. The cost per exam is \$92.00

HONORS H

Honors courses are accelerated and require above average past achievement, and/or high interest in the general subject area. Students must be able to work independently and to complete a considerable number of comprehensive assignments requiring advanced skills. Students should carefully consider taking these classes and should seek guidance from their parents, counselors and current teachers before finalizing their decision to elect any Honors class.

COLLEGE PREP

College Prep classes are geared towards preparing the student for the expectations and level of rigor of a four-year college or university. Students should be able to solve problems, apply knowledge, use technology and present information effectively. A college prep student must be able to define, summarize and organize large bodies of knowledge, analyze problems and develop critical-thinking skills.

UNLEVELED

Most courses in the areas of physical/health education and fine and applied arts have no level designation. Many other departments also offer courses that are unleveled. As such, they do not count in the computation of class rank/grade point average. This is done purposely to encourage all students to take those courses based on their interests, talents, and career goals.

SCHEDULE CHANGES

Changes in class schedules are discouraged. A change request made due to poor attendance, tardiness, inadequate class participation, failure to do homework or lack of effort will not be approved.

A request for a change in schedule may be honored if the following circumstances are present:

- Problems created by the unavailability of an offering
- A teacher-initiated level change made following a conversation with the student and parent/guardian which has been approved by the department chairperson/director
- *Understand that changing one course often results in the need to change a student's entire schedule and even if a teacher approves a change there may not be course offerings available.
- *Please follow the MHS chain of command to initiate all schedule changes which states that the student/parent/guardian first contacts the teacher, who contacts the guidance counselor.

REPORT CARDS

The school year consists of two semesters. Each semester is divided into two terms. Report cards are issued four times a year: November, February, April and June.

PROGRESS REPORTS

Interim progress reports are issued midway through each marking period to make students aware of their academic standing in each class. If students are not satisfied with their academic performance, or if the student would like to perform better, speaking with the teacher is the first step to take.

CLASS RANK

Class rank is a student's numerical academic standing in his/her class in relation to all other members of the class (e.g., 50 in a class of 300). This standing is based on the mathematical computation of the grades earned, called a grade-point-average ("GPA"). Milton High School uses a weighted system where both the levels of the courses and the final grades are used in determining class standing. Courses are weighted in the following, ascending order: College Prep, Honors, and Advanced Placement. Class rank is computed for all weighted courses taken at Milton High School through the end of the junior year. For more information on this topic, see your guidance counselor.

CLASS RANK

TO COMPUTE WEIGHTED GPA:

- List your academic courses (college prep) and levels: AP, Honors or College Prep
 List your final grade and the corresponding Quality Points (use only courses that are leveled)
 Enter Weight Value (1 for full year course, .5 {point five} for semester course)
 Multiply Quality Points by Weight Value
 Add your total Quality Points and Total Points Value
 Divide the total Points Value by the total Weight Value

	QUALITY POINTS					
Grade	AP	Н	СР			
A	5.00	4.50	4.00			
A-	4.67	4.17	3.67			
B+	4.33	3.83	3.33			
В	4.00	3.50	3.00			
B-	3.67	3.17	2.67			
C+	3.33	2.83	2.33			
С	3.00	2.50	2.00			
C-	2.67	2.17	1.67			
D+	2.33	1.83	1.33			
D	2.00	1.50	1.00			
D-	1.67	1.17	0.67			
F	0.00	0.00	0.00			

Subject	Level	Final Grade	Quality Points		Weight Value		Points Value
Grade 9				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
Grade 10				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
Grade 11				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
				X		=	
					Total		Total

			_	
Total Points Value	{divided by}	Weight Value	=	Weighted GPA

GUIDANCE DEPARTMENT

High school is the final transition to college, the world of work and adulthood. Students are learning who they are and what they do well, and what paths they will take upon graduation. Counselors work with students individually, and in small groups, to promote the educational mission of the school. They deliver a proactive and comprehensive developmental group guidance program focusing on student career and post secondary goals, improving academic performance, and providing responsive counseling services for issues such as depression, anxiety, and loss. The group guidance program helps students to achieve optimal personal growth, acquire positive social skills and values, set appropriate career goals and realize full academic potential to become productive, contributing members of the world community. Counselors also help students with school issues that may limit their ability to take full advantage of the school's educational opportunities.

As a college degree becomes more critical for success in our society, helping students to make the successful transition from high school to post secondary education becomes more crucial. As students transition through high school, appropriate course selection and supports to meet the standards in those courses and to achieve passing scores on MCAS are imperative. Through classroom interventions, group guidance, and through individual assistance, school counselors provide the support for students to meet their educational and career goals K-12.

High school students begin the journey toward college and career exploration needing to learn a sophisticated set of decision making, critical thinking, content mastery, and problem-solving skills that are essential for post secondary planning and college success. The counselors at Milton High School work diligently to ensure equitable access to educational and career opportunities for all students, and they promote an interdisciplinary approach to address student needs and educational goals. This includes:

- <u>PROGRAM PLANNING</u> assist with course selection, evaluation of course schedule and implementation of long-range planning
- <u>SELF-ASSESSMENT</u> assist students in using the numerous tools available to determine ability, achievement and interests
- <u>DECISION MAKING</u> help students evaluate and problem-solve
- <u>CAREER PLANNING</u> help students develop a viable plan for their future through the resources both in and outside of school
- <u>COMMUNICATION</u> reach out to parents and the community to keep them informed of the services of the school and the needs, abilities and accomplishments of the students through various parent evenings scheduled through the year
- <u>INTERVENTION</u> identify students in need of services and coordinate available resources
- <u>CAREER TRANSITIONS PROGRAM</u> provide career activities designed to discover, explore, and define student's interests and abilities through the utilization of interactive software and the Internet.

Materials located in the Guidance office include:

- A variety of directories on colleges, technical and vocational schools
- A wide selection of summer program offerings at colleges and universities
- Scholarship information

- Booklets and articles on the college planning process, financial aid, college majors, careers,
- Touch screen tablets designed by Apple

The Guidance Department hosts college fairs in the fall and spring when over 200 college representatives come to visit the students at Milton High School. A list of colleges/universities attending is posted on Edline and Naviance.

For more information on guidance services, please go to www.miltonps.org. There you will find downloadable forms, a calendar of upcoming events and links to a variety of useful websites, including Naviance.

COUNSELOR ASSIGNMENTS FOR THE 2016-2017 SCHOOL YEAR

Grade 12 (Class of 2017)		Grade 10 (Class of 2	019)
Lisa Spinelli	A-Coulter	Lisa Spinelli	A – Fleurimond
Richard Guarino	Coutant-H	Leonice Bernard	Flynn-LeLacheur
Leonice Bernard	I-Maviridis	Scott Devlin	Li-Rush
Scott Devlin	McGeachy-R	Karen Cahill	S-Z
Karen Cahill	S-Z		
Grade 11 (Class of 2018)		Grade 9 (Class of 20	<u>20)</u>
Lisa Spinelli	A – Donahue	Lisa Spinelli	A-El Sayed
Richard Guarino	Donelan - Flaherty	Leonice Bernard	Elfer-Liu
Leonice Bernard	Flanagan - Malone	Scott Devlin	Lorden-Possi
Scott Devlin	Marc - Sullivan	Rich Guarino	Quijano-Tucker
Karen Cahill	Surrette-Fahey - Z	Karen Cahill	V-Z

SCHOOL DIRECTORY **High School Main Office Staff - 617-696-4470** James F. Jette, Principal

Ben Kelly, Assistant Principal ~ Brian Mackinaw, Assistant Principal

Maureen Kennedy, Admin. Asst. (Ext. 5503)

Brad Spindle, Admin Asst. (Ext. 5502)

To contact a staff member, please call the main number listed above and follow the prompts. To contact a staff member via email, please go to www.miltonps.org; there you will find directions to each staff member's email.

HOMEWORK POLICY

Homework is a fundamental part of the learning program at Milton High School. A significant amount of homework is assigned each night and will vary depending on course load. Honors and AP-level courses will require significantly greater homework.

MILTON HIGH SCHOOL ACTIVITIES * CLUBS * SPORTS

CLUBS / ACTIVITIES

Amnesty International

Anime Club Art Club

Asian Cultural Club

Badminton Best Buddies Book Club

Boys After-School Singers

Cabaret

Caribbean-Cape Verdean Club

Century Club Chamber Orchestra Christmas Carolers

Crew

Dance Team Debate Team Drama Club

Echo (MHS art & literary magazine) Elephant In The Room (Newspaper)

Environmental Club

Film Club French Club

Future Business Leaders Gay/Straight Alliance Girls After-School Singers

Gospel Choir

High School Quiz Show

Homework Club Irish-American Club Jazz Ensemble

Key Club
LifeSmarts
Latin Club
Marching Band

Math Club Math Olympiad

Milton After-School Singers

Mock Trial Club

National Honor Society

The Observer (student newspaper)

Outdoor Club Ping Pong Club Photography Club Poetry Club

Recycling Club

Robotics SADD

Sewing Club Spanish Club String Quartet

Student Government Student Leaders

Tomorrow's Teachers Club Tri-M Music Honor Society

Ultimate Frisbee

Yearbook

INTERSCHOLASTIC ATHLETICS

Fall

Cheerleading

Crew

Cross Country Field Hockey Football Golf

Soccer Volleyball

Winter

Basketball Cheerleading Ice Hockey Indoor Track Alpine Skiing Wrestling

Spring

Baseball Crew

Lacrosse Rugby

Softball

Tennis Track

Most MHS sports are offered to boys and girls at the varsity, Junior varsity and freshman level

MILTON HIGH SCHOOL COURSE SELECTION - GRADE 9 – 2016-2017~Class of 2020

The following is a list of courses typically selected in grade 9. Be sure to read the **Program of Studies** for course descriptions and graduation requirements

PHYSICAL EDUCATION / HEALTH		TECHNOLOGY EDUCATION	ON
Phys. Ed/Health	2.50	Technology Essentials	2.50
•		Computer Technology I	2.50
ENGLISH		TV Production	2.50
English 1	5.00	Wood Technology I	2.50
Drama I	2.50	*Wood Technology II	2.50
*Drama II	2.50	*STAT	2.50
Journalism	2.50		
Creative Writing	2.50	FAMILY AND CONSUMER	SCIENCES
Public Forum Debate 2.5	0/5.00	Culinary Arts I	2.50
		*Culinary Arts II	2.50
WORLD LANGUAGES		Fashion Design I	2.50
French 1,2,3	5.00	*Fashion Design II	2.50
Fr. Immersion 4	5.00		
Spanish 1,2,3	5.00	VISUAL ARTS	
Latin 1,2,3	5.00	Foundations of Art	2.50
		Visual Literacy I	2.50
MATHEMATICS		*2D Studio Art	2.50
Algebra, Geom & Stats	5.00	*3D Studio Art	2.50
Intro to Computer Science	2.50		
Robotics	2.50	MUSIC	
		Chorus	5.00
SCIENCE		*Concert Band	5.00
Intro to Biology	5.00	*String Ensemble	5.00
Biology I	5.00	Electronic Music Lab: Part 1	2.50
		*Electronic Music Lab: Part 2	2.50
SOCIAL STUDIES		Rock and Jazz Experience	2.50
Modern World Cultures	5.00	Beginner Drumming	2.50
Law & Government	5.00	Songwriting	2.50
		Beginning Guitar 1 &*2	2.50
BUSINESS		*Jazz Ensemble	5.00
Introduction to Business I	2.50	*{classes with prerequisite requ	iirement l
Introduction to Business II	2.50	terasses with prerequisite requ	incincin
Introduction to Economics	2.50		
Financial Accounting	2.50	Some students will be assigned	to Freshman
Personal Finance	2.50	Seminar. See course description	
		booklet	i di cita oj titis

MILTON HIGH SCHOOL COURSE SELECTION - GRADE 10 – 2016-2017 ~ Class of 2019

The following is a list of courses typically selected in grade 10. Be sure to read the **Program of Studies** for course descriptions and graduation requirements.

PHYSICAL EDUCATION/HEALTH		SCIENCE	
Phys Ed/Health	2.50	Biology I	5.00
•		Chemistry I	5.00
ENGLISH		The Science of Life	5.00
English 2	5.00	Engineering By Design	2.50
Creative Writing	2.50		
Journalism	2.50	BUSINESS	
Drama I	2.50	Introduction to Business I	2.50
*Drama II	2.50	Introduction to Business II	2.50
Public Forum Debate	2.50/5.00	Introduction to Economics	2.50
Speech	2.50	Financial Accounting I	2.50
		Personal Finance	2.50
WORLD LANGUAGES		AP Microeconomics	5.00
French 1-5	5.00	AP Macroeconomics	5.00
French Immersion 5	5.00	EAMILY AND CONCUMED CO	TENODO
Spanish 1-4	5.00	FAMILY AND CONSUMER SO	
Latin 1-4	5.00	Culinary Arts I	2.50
		*Culinary Art II	2.50
MATHEMATICS		Fashion Design I	2.50
Algebra 2, Geom & Stats	5.00	*Fashion Design II	2.50
Intro to Computer Science	2.50	*Adv. Fashion Design Workshop	2.50
Robotics	2.50	VISUAL ARTS	
*Computer Science	2.50	Foundations of Art	2.50
*AP Science	5.00	Visual Literacy	2.50
*AP Science Principles	5.00	*2D Studio Art	2.50
		*3D Studio Art	2.50
SOCIAL STUDIES		*Advanced Art	5.00
U. S. History I	5.00	*Digital Photography I	2.50
Law & Government	5.00		
		MUSIC	7 00
TECHNOLOGY EDUCA	ATION	*Concert Band	5.00
Computer Technology I	2.50	Chorus	5.00
TV Production	2.50	*String Ensemble	5.00
*MHS Wildcat News	2.50	Electronic Music Lab: Part 1 *Electronic Music Lab: Part 2	2.50 2.50
Wood Technology I	2.50	Rock & Jazz Experience	2.50
*Wood Technology II	2.50	Beginner Drumming	2.50
Consumer Car Care	2.50	Songwriting	2.50
STAT	2.50	Beginner Guitar 1 &*2	2.50
		*Jazz Ensemble	5.00

^{*{}classes with prerequisite requirement}

MILTON HIGH SCHOOL COURSE SELECTION - GRADE 11 – 2016-2017~ Class of 2018

The following is a list of courses typically selected in Grade 11. Be sure and read the **Program of Studies** for course descriptions and graduation requirements.

PHYSICAL EDUCA	ATION/HEALTH
D1 T: 1/LL - 141-	2.50

Phys Ed/Health	2.50		
ENGLISH		TECHNOLOGY EDUCAT	ΓΙΟΝ
English 3	5.00	Computer Technology I	2.50
*AP English Language	5.00	TV Production	2.50
American Experience	5.00	*MHS Wildcat News	2.50
Creative Writing	2.50	Wood Technology I	2.50
Drama I	2.50	*Wood Technology II	2.50
*Drama II	2.50	Consumer Car Care	2.50
Journalism	2.50	*Automotive Maintenance	2.50
	0/5.00	*STAT	2.50
SAT Prep	2.50		
WORLD LANGUAGES		BUSINESS	2.50
Spanish 1-5	5.00	Introduction to Business I	2.50
Latin 1-5	5.00	Introduction to Business II	2.50
French 1-5	5.00	Introduction to Economics	2.50 2.50
French Connection VI(lmm)	5.00	Financial Accounting 1 Personal Finance	2.50
AP French Language	5.00	AP Microeconomics	5.00
AP Spanish Language	5.00	AP Macroeconomics	5.00
AP Latin	5.00	111 1/14/01 000 011/011110	
MATHEMATICS		FAMILY & CONSUMER	
	5.00	Culinary Arts I or *II	2.50
Algebra 2, Stats & Precalc AP Statistics		*Culinary Arts III	2.50
	5.00	Fashion Design I or *II	2.50
Accel Precalc Stats & Calc	5.00	*Adv. Fashion Design	2.50
Intro to Computer Science	2.50	Child Study 1	5.00
Robotics	2.50	VISUAL ARTS	
*Computer Science	2.50	Foundations of Art	2.50
*AP Computer Science	5.00	Visual Literacy	2.50
*AP Computer Principles	5.00	*2D Studio Art	2.50
SAT Prep	2.50	*3D Studio Art	2.50
SCIENCE		*Advanced Art	5.00
Chemistry I	5.00	*Digital Photography I/II	2.50
Physics I	5.00	MUSIC	
Human Anat/Physiology	5.00	Chorus	5.00
The Science of Life	5.00	*Concert Band	5.00
AP Biology	5.00	*String Ensemble	5.00
AP Chemistry	5.00	Electronic Music Lab 1	2.50
AP Physics I	5.00	*Electronic Music Lab 2	2.50
Intro to Biotechnology	2.50	*Music 3	5.00
Biotechnology	2.50	Rock & Jazz Experience	2.50
Environmental Sci Part A	2.50	Beginner Drumming	2.50
Environmental Sci Part B	2.50	Songwriting	2.50
Engineering By Design	2.50	AP Music Theory	5.00 2.50
SOCIAL STUDIES		Beginner Guitar 1 & *2 *Jazz Ensemble	5.00
U. S. History II	5.00		
*AP U. S. History	5.00		
American Experience	5.00	*(classes with prerequisi	te requirement)
*Psychology 1 & 2	2.50		<u>-</u> ′
Law & Government	5.00		
Lan a coverminant	2.00		

MILTON HIGH SCHOOL COURSE SELECTION - GRADE 12 – 2016-2017 ~ Class of 2017

The following is a list of courses typically selected in Grade 12. Be sure and read the **Program of Studies** for course descriptions and graduation requirements.

PHYSICAL EDUCATION Phys Ed/Health	/HEALTH 2.50	TECHNOLOGY EDUCAT Computer Technology I TV Production	7 ION 2.50 2.50
ENGLISH		*MHS Wildcat News	2.50
English 4	5.00	Wood Technology I	2.50
* AD English Literature	5.00		2.50
*AP English Literature	2.50	*Wood Technology II	2.50
Creative Writing Drama I	2.50	Consumer Car Care	2.50
*Drama II	2.50	*Automotive Maintenance *STAT	2.50
Journalism	2.50	.31A1	2.30
	2.30 0/5.00	DUCINESS/COMPUTED 7	FECUNOLOCV
	2.50	BUSINESS/COMPUTER T	
SAT Prep	2.30	Introduction to Business I	2.50
WORLD LANGUAGES		Introduction to Business II	2.50
	5.00	Introduction to Economics	2.50
Spanish I on guage		Financial Accounting 1	2.50
AP Spanish Language	5.00	Personal Finance	2.50
Latin 1-6	5.00	AP Macroeconomics	5.00
AP Latin	5.00	AP Microeconomics	5.00
French 1-6	5.00		
French Connection VII (lmm		FAMILY & CONSUMER	SCIENCES
AP French Language	5.00	Culinary Arts I or * II	2.50
		*Culinary Arts III	2.50
MATHEMATICS	5.00	Fashion Design I or *II	2.50
Statistics	5.00	*Adv. Fashion Design	2.50
Applied Mathematics	5.00	Child Study 1	5.00
Calculus AB	5.00	*Child Study 2	5.00
AP Calculus AB	5.00	Cima Study 2	5.00
AP Calculus BC	5.00	VISUAL ARTS	
AP Statistics	5.00	Foundations of Art	2.50
*AP Computer Science	5.00	Visual Literacy	2.50
*AP Computer Sci Principles	s 5.00	*2D Studio Art	2.50
Intro to Computer Sci	2.50	*3D Studio Art	2.50
Robotics	2.50	*Advanced Art	5.00
*Computer Science	2.50	*Digital Photography I/II	2.50
SAT Prep	2.50	*Advanced Art	5.00
COLLINGE		*AP Studio Art	5.00
SCIENCE	7 00	Al Studio Alt	3.00
Physics I	5.00	MUSIC	
Human Anatomy/Physiology		Chorus	5.00
AP Biology	5.00	*Concert Band	5.00
AP Chemistry	5.00		5.00
AP Physics I & II	5.00	*String Ensemble Electronic Music Lab 1	2.50
Intro to Biotechnology	2.50	*Electronic Music Lab 2	2.50
Biotechnology	5.00		
Environmental Sci Part A	2.50	*Music 3	5.00 2.50
Environmental Sci Part B	2.50	Rock & Jazz Experience	2.50
Engineering By Design	2.50	Beginner Drumming	2.50
		Songwriting	
SOCIAL STUDIES	7 .00	AP Music Theory	5.00
*AP Psychology	5.00	Beginner Guitar 1 &*2	2.50
*AP European History	5.00	*Jazz Ensemble	5.00
*Psychology 1	2.50		
*Psychology 2	2.50	*/-1 '.·1	:4 4
Law & Government	5.00	*(classes with prerequisi	ne requirement)
Contemporary Issues	5.00		

II.

DEPARTMENTAL PROGRAMS

BUSINESS PROGRAM

The Business Department offers a wide range of courses that are designed to benefit all students. Some courses are accelerated college-preparatory programs to provide a solid foundation for students planning to continue their education.

BUSINESS EDUCATION SEQUENCE

Grade 9		Grade 10		Grade 11 and 12	
Intro to Business I	2.50	Intro to Business I	2.50	Intro to Business I	2.50
Intro to Business II	2.50	Intro to Business II	2.50	Intro to Business II	2.50
Intro to Economics	2.50	Financial Accounting	2.50	Financial Accounting	2.50
Personal Finance	2.50	Personal Finance	2.50	Personal Finance	2.50
Financial Accounting	2.50	AP Microeconomics	5.00	AP Microeconomics	5.00
		AP Macroeconomics	5.00	AP Macroeconomics	5.00
		Intro to Economics	2.50	Intro to Economics	2.50

Business Offerings

INTRODUCTION TO BUSINESS I Unleveled 812

2.5 credits

Introduction to Business I is a semester long course providing students with an introduction to general business concepts. Students will learn the functional areas of business, the business cycle, the importance behind business ethics, what it takes to become an entrepreneur, and how to start a business. Students will study management strategies for developing and implementing business plans; structuring the organization; financing the organization; and managing information, operations, and marketing.

INTRODUCTION TO BUSINESS II Unleveled 811

2.5 credits

Introduction to Business II is a semester long course. An integral component of this course is a school-based entrepreneurial venture that will engage students in the management of a business and the challenges of operating a business. Students will also learn about basic economic principles, gain an understanding of the global economy, the importance of business law (knowing and abiding), functions of human resources, the importance of being financially literate and the basic principles of accounting.

Prerequisite: Introduction to Business I

FINANCIAL ACCOUNTING Unleveled 815

2.5 credits

Financial Accounting is a semester-long course course providing students with an introduction to one of the fastest-growing professions in the United States, which includes a formal system of financial-record management for proprietorships and partnerships. Students will study accounting vocabulary, the relationship between accounting and business, and the accounting cycle for service and merchandise business. Students will gain experience dealing with specialized accounting applications: special journals, petty cash system, taxes, depreciation, managerial decisions, and interest.

INTRODUCTION TO ECONOMICS Unleveled 817

2.5 credits

This course is highly recommended for freshmen and sophomores who are interested in a challenging economics and business curriculum. It is especially appropriate for students who intend to enroll in Advanced Placement Microeconomics and/or Advanced Placement Macroeconomics. Students will be introduced to the topics of supply/demand, opportunity cost, elasticity, diminishing marginal utility, Gross Domestic Product, Consumer Price Index, and economic indicators.

PERSONAL FINANCE Unleveled 807

2.5 credits

This performance-based course emphasizes the importance of establishing smart financial goals and will provide students with the knowledge and skills needed to responsibly manage their own money. Using curriculum materials developed by the National Endowment for Financial Education, students will create their own budget, develop a personal savings and investing plan, manage a checking and debit account and learn how to responsibly use credit. At the end of the semester, students will develop a personalized financial plan which will reflect their career and lifestyle choices

AP MICROECONOMICS 847

5 credits

This is a rigorous college-level course. The course utilizes the College Entrance Board's AP Microeconomics syllabus. Topics include basic economic concepts, thinking like an economist, benefits of trade, supply and demand, elasticity, costs of taxation, externalities, costs of production, competitive and monopolistic markets, market failures and the role of government in the economy. All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course. Prerequisite: Grade 10 or higher.

AP MACROECONOMICS 848

5 credits

This is a rigorous college-level course. The course utilizes the College Entrance Examination Board's AP Macroeconomics syllabus. Topics include measurement of economic performance, national income and price determination, banking and finance, inflation and unemployment, economic growth and productivity, international trade and finance. All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course. Prerequisite: Grade 10 or higher.

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ENGLISH PROGRAM

The English Department offers a required four-year sequence of comprehensive courses, each of which combines the study of literature, composition, reading, grammar, and language. All students must pass four years of English in order to graduate.

ENGLISH DEPARTMENT COURSE SEQUENCE					
9 th Grade	10 th Grade	11 th Grade	12 th Grade		
ENGLISH 1 Honors/ College Prep	ENGLISH 2 Honors/ College Prep Speech Unleveled	ENGLISH 3 Honors/ College Prep	ENGLISH 4 Honors/ College Prep		
		~or~	~or~		
		AMER. EXPERIENCE Honors	AP ENGLISH Literature		
		~0r~			
		AP ENGLISH Language & Composition			

Additional Courses:

9 th Grade	10 th Grade	11 th Grade	12 th Grade	
Drama I, Drama II Creative Writing Journalism Public Forum Debate	Drama I, Drama II Creative Writing Journalism Public Forum Debate	Drama I, Drama II Creative Writing Journalism Public Forum Debate SAT Prep	Drama I, Drama II Creative Writing Journalism Public Forum Debate SAT Prep	

ENGLISH I Honors 112 College Prep 113

5 credits

All freshmen take English I, which offers practice in composition, vocabulary, language, and literary studies. Students review principles of grammar and complete their introduction to the grammatical structure of English. Emphasis in writing is on the development of expository themes, book reviews, and a variety of practical and creative forms. The study of literature concentrates on the development of critical and analytical skills in several literary genres. Reading requirements include a wide range of classic and modern selections and an independent reading program.

ENGLISH II Honors 122 College Prep 123

5 credits

English II is a required course that is a sequel to English I and is taken in the sophomore year. Formal grammar is reviewed as necessary; studies in standard English usage extend to include more complex stylistic problems. The study of literature covers novels, plays, short stories, essays, and a variety of other forms in prose and poetry. Writing instruction in academic, practical, and creative forms is given in both group and individual instruction. Vocabulary study is supplemented in college preparatory levels with specific preparation for SATs and MCAS exams. Each student will pursue an independent reading program.

ENGLISH III Honors 132 College Prep 133

5 credits

English III focuses on the critical and historical study of American literature, with a goal of enhancing students' understanding of American culture through the study of American literature. Study in this course focuses on critical reading and writing skills, Standard English usage, vocabulary acquisition, and oral interpretation fluency. The study of literature includes fiction –novels and short stories – drama, poetry, and essays. In addition to reading whole-class texts, all students pursue independent reading. Writing instruction is centered on preparing students to write a literary research paper, which is required of all students.

THE AMERICAN EXPERIENCE Honors 160

5 credits

This course offers a view of the American experience through the study of literature and primary source documents of historical note. These works will enhance the study of key personalities and events in American history as well as how they chronicle the unfolding of American intellectual tradition. The course is team taught by members of the English and Social Studies Departments. Credits earned apply to the grade 11 requirements in both subjects.

AP ENGLISH LANGUAGE AND COMPOSITION 146

5 credits

Advanced Placement English Language and Composition is a college-level junior course in the study and practice of rhetoric, or the art of persuasion through language. Through a rigorous examination of various genres across time (with special focus on American nonfiction) students learn to comprehend and analyze complex texts and to write rich, sophisticated prose that communicates successfully with mature readers. The curriculum focuses on American rhetoric, from Puritan nonfiction to contemporary political discourse. The material objective of the course is to prepare students to perform successfully on Advanced Placement exam in May. The broader goal is for students to become skilled not only in reading prose written in various periods, disciplines, and rhetorical contexts, but also in writing for a variety of purposes, audiences, and contexts. Through extensive discussion, feedback, and practice, students learn to be persuasive writers and critical thinkers. All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course.

AP ENGLISH LITERATURE 141

5 credits

This senior course is for advanced students in English who are capable of doing college-level work. Study in this course centers on the reading of fiction, drama, and poetry, and texts are analyzed through a variety of means (thematic, historical, formal and structural among them). Course readings represent the British and Western literary tradition, from the Ancient world and through the twentieth century. Selections represent a variety of authors, including Sophocles, Chaucer, Shakespeare, Austen, and Achebe. Students also pursue a rigorous independent reading program. This course develops students' advanced critical reading and writing skills, oral interpretation fluency, and discussion seminar skills. Advanced work in critical writing culminates in a research paper written in the second semester. All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course.

ENGLISH IV Honors 142 College Prep 143

5 credits

Senior English includes a survey of English literature from Beowulf to the present, an in-depth study of Sophocles and Aristotle, a Shakespearean play, one or more nineteenth-century English novels, and various selections from several genres. Emphasis is placed on perfecting a student's ability to express himself in writing. A personal essay, an independent reading assignment and a research paper are required by all students

SPEECH Unleveled 110

2.5 credits

Speech is a required course for graduation and is usually taken in a student's sophomore year. Students learn to think clearly and express themselves effectively before an audience. The course presents multiple aspects of public speaking and provides practical experience through participation. Students organize and prepare speaking assignments and practice the elements of verbal and nonverbal interpersonal skills, such as poise, diction, voice and engagement. Students also practice listening skills, interviewing and debating. Ultimately students learn about the role of communication in our lives and the effectiveness of language.

DRAMA I Unleveled 116

2.5 credits

This is an introductory course for the dramatic arts. Students learn the fundamentals of acting. They are exposed to a variety of methods for experimentation with vocals and body movements. Scene study provides them with an arena to investigate characterization and production techniques. The basics of theatre history, technical theatre and the production process are also explored. Students will perform in class and have to memorize one performance piece per quarter.

DRAMA II Unleveled 117

2.5 credits

This course is designed for the experienced actor. Prerequisites are Drama I or teacher approval. Students complete advanced scene study and develop characterization technique. Audition techniques, improvisation, and technical theatre skills are an area of continued study. Additionally, the craft of playwriting is introduced and explored. This class requires memorization of contrasting monologues, duet scenes, and other performance selections.

PUBLIC FORUM DEBATE Honors 196 **PUBLIC FORUM DEBATE** Honors 195

5 credits

2.5 credits

The course offers intense study of four Public Forum Debate topics with the aim of preparing students for interscholastic debates on these topics. Students enrolled in this course are considered members of the Milton High School debate team. The course prioritizes the practice of debate, discussion of debate rounds, and advanced philosophy of the art of debate, logic, and elocution. Students should be proficient researchers, writers, and thinkers. Students can take this course for multiple years or semesters. Students enrolled in Debate must commit to two interscholastic competitions per semester. These competitions are held on Saturdays.

CREATIVE WRITING I, II, III Unleveled I 103, II 104, III 105

2.5 credits

Students will experiment with narration, characterization, dialogue, story development, and various forms of poetry. They develop their own styles and to engage in the types of writing they most enjoy. The class combines workshop and seminar methods. Students are given time to write and to share their work with the class for discussion and criticism. Students may elect this course for a second semester or third semester of increasingly more intensive focus on craft and revision, with the ultimate goal of producing publishable work, for an additional 2.5 credits each.

JOURNALISM Unleveled 137

2.5 credits

This course presents journalistic writing as a special form of composition. Additional topics include electronic media (radio, television, and internet communications) as well as developing a sense of responsibility for the printed or broadcast word. Students may elect this course for a second semester for an additional 2.5 credits.

SAT PREP Unleveled 154

2.5 credits

This course prepares students for the SAT exam. Students rotate between an English and Math instructor throughout the semester in order to prepare for both the Verbal and Mathematics portions of the exam. Focus will be on the content assessed by the exam, but will also include test-taking strategies specific to the exam. Students taking this exam should take the SAT exam scheduled by the College Board at the end of the course.

LANGUAGE ARTS SUPPORT Unleveled 121

5 credits

A small number of students will be assigned to this course which parallels CP English classes, and students enrolled in Language Arts Support class must be recommended by their English teacher of record. The course is designed to supplement the study of English/language arts in the regular English class. The increased time for English assignments and the focus on study skills, reading, grammatical principles, standard usage, mechanics, and composition facilitates the students' performance in English and enhance their chances of success in all classes at the high school.

MCAS ENGLISH PREPARATION Unleveled 108

2.5 credits

This course is recommended for ninth or tenth-grade students who would benefit from additional support prior to the MCAS ELA exam, and students enrolled in this class must be recommended by their English teacher of record. The class emphasizes the reading/writing skills necessary to succeed on the MCAS examination, a test which all students must pass in order to graduate.

ENGLISH LANGUAGE EDUCATION PROGRAM Unleveled 101

5 credits

English Language Education program offers instructional and support services for those students whose first language is not English and who have been identified as Limited English Proficient. These services focus on listening, speaking, reading and writing English, as well as providing support for the classroom curriculum.

FAMILY AND CONSUMER SCIENCES PROGRAM

The Family and Consumer Sciences Department offers courses which prepare students to think critically about the family, health, and consumer problems which they will encounter throughout their lives. The three main areas include child study, clothing and textiles, and foods and nutrition. Through these courses students will explore, examine, and evaluate nutritional information and choices, disease prevention, human development, mental health, parenting, and consumerism. Students will enhance their communication, writing, mathematical and problem-solving skills through the presented curriculum. At the same time they will be equipped to make connections to possible career opportunities and to the betterment of their community.

FAMILY AND CONSUMER SCIENCES SEQUENCE

Grade 9)	Grade 10		Grade 11		Grade 12	
	cr.		cr.		cr.		cr.
Culinary Arts I	2.5	Culinary Arts I	2.5	Culinary Arts I	2.5	Culinary Arts I	2.5
Fashion Design I	2.5	* Culinary Arts II	2.5	* Culinary Arts II	2.5	* Culinary Arts II	2.5
		Fashion Design I	2.5	* Culinary Arts III	2.5	* Culinary Arts III	2.5
		* Fashion Design II	2.5	Fashion Design I	2.5	Fashion Design I	2.5
				* Fashion Design II	2.5	* Fashion Design II	2.5
				*Adv Fashion Design	2.5	*Adv Fashion Design	2.5
				Child Study I	5.0	Child Study I	5.0
				Teaching Asst	2.5	*Child Study II	5.0

^{*} These courses require a prerequisite.

CULINARY ARTS I Unleveled 716

2.5 credits

This course introduces the basic principles of sanitation and safety related to the hospitality industry, food service nutrition, menu design, culinary skills 1, food science and baking 1. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food borne illness, allergy awareness, personal nutrition fundamentals, weight management, healthy cooking techniques, buffet set-up, profitability, basic cookery, recipe conversion, measurements, terminology, classical knife cuts, flavorings/seasonings, sauces, heat transfer and its effect on color/flavor/texture, emulsification, leavening agents, pastry dough, batter, pies, custards, cakes, cookies, icings, glazes. Upon completion, students should be able to demonstrate an understanding of these principles and show basic proficiency as they apply to food preparation in an experimental laboratory setting, and, the content necessary for successful completion of a nationally recognized food/safety/sanitation exam. The course is enhanced through lab work, guest speakers and computer labs.

CULINARY ARTS II Unleveled 719

2.5 credits

This course is designed to further students' knowledge of the fundamental concepts, skills, and techniques involved in basic cookery and baking. Emphasis is placed on meat identification/fabrication, butchery and cooking techniques/methods: appropriate vegetable/starch accompaniments; compound sauces; cake and torte production; decorating and icings; frozen desserts; plate presentation; breakfast cookery; quantity food preparation; knowledge of ingredients; weight and measures; baking terminology, formula calculations. Upon classwork and laboratory completion students should be able to demonstrate a basic proficiency in how to plan, execute, and successfully serve entrees with complementary side items and be able to perform cake-decorating techniques, produce and plate assorted pastries. Prerequisite: Culinary Arts I.

CULINARY ARTS III Unleveled 724

2.5 credits

This course introduces students to current culinary trends which include a variety of preparation methods. Topics include current developing trends such as adaptation of native/regional ingredients and preparation methods of a variety of contemporary cuisines. Practical experience in planning, techniques and procedures for culinary competition and exhibitions is explored. Emphasis is placed on menu planning, teamwork, plate design, flavor profiles, recipe development, nutrition, advanced knife/culinary skills, and professionalism. Upon completion, students should be able to apply knowledge of a variety of contemporary cuisines and apply competition/exhibition skills and standards in the kitchen laboratory. Prerequisite: Culinary Arts II.

FASHION DESIGN I Unleveled 717

2.5 credits

This course covers elements and principles of design, history of fashion and adornment, fabric and textiles in fashion, the color wheel. Students are introduced to the basic skills required to sew including operating sewing equipment, selecting and preparing patterns, and completing various sewing projects. Projects will include a variety of seams and bags, an infinity scarf, napkins, hand sewing, tee shirts and a community service project. Purchasing materials for some projects may be required. The course is enhanced through lab work, guest speakers and computer labs.

FASHION DESIGN II Unleveled 736

2.5 credits

This class will build on previous skills for the student who is interested in the Fashion and Interior Design Industry. Students will explore various aspects of the principles of design, influences of fashion trends, marketing techniques and advanced apparel construction techniques. The course is enhanced through lab work, guest speakers and computer labs. Prerequisite: Fashion Design I.

ADVANCED FASHION DESIGN WORKSHOP Unleveled 728

2.5 credits

Advanced students will develop a small business idea and follow it through with advertising and product development. The course is enhanced through lab work, guest speakers and computer labs. Prerequisite: Fashion Design II.

CHILD STUDY I Unleveled 738

5 credits

This course is designed for juniors or seniors wishing to study the growth and development of young children. Course units include parenting and the family unit, prenatal development and birth, brain development, guiding children's behavior, and the developmental stages of the child from infancy to school age. Students also have the opportunity to work with Pre-K children in the on-site laboratory school which involves building observation skills, and planning, preparing and teaching lessons. This course provides a unique opportunity for students who enjoy working with children and perhaps are interested in pursuing a career in education. A CORI check is required before admittance.

CHILD STUDY II Unleveled 748

5 credits

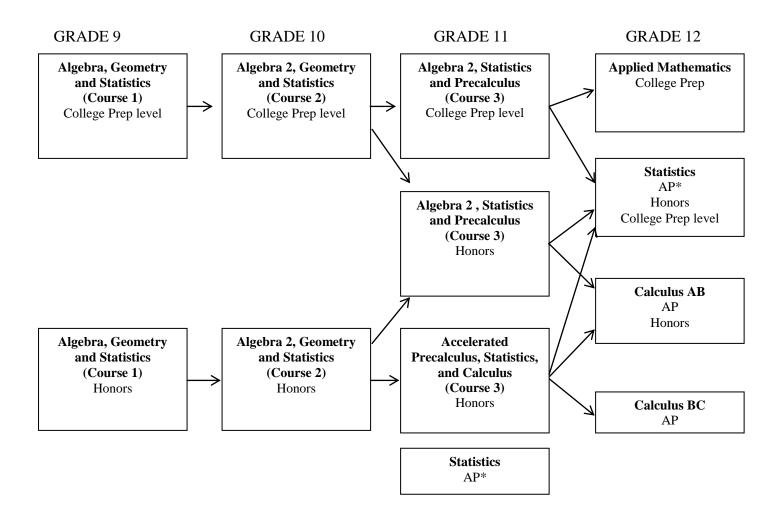
This course is designed for students wishing to advance their study of children, development and the important aspects of childhood in our society and the world. Units include such topics as early literacy, social effects of media on children, global education, emotional and behavioral issues, and the multicultural classroom. Also included are topics of discussion such as the benefits of art and music, children's literature, and an historical study of child's play and toys. Students continue to assist in the on-site laboratory school, teach lessons and work one-on-one with Pre-K children to guide them towards a smooth transition at the Kindergarten level. Child Study I is a prerequisite for Child Study II.

MATHEMATICS PROGRAM

The MHS Mathematics Department offers an array of courses that meet or exceed the requirements of the Massachusetts Curriculum Frameworks and the National Council of Teachers of Mathematics (NCTM) Standards. Courses stress critical thinking, reasoning, problem solving, communicating mathematically, the appropriate use of technology, and connections to the real world. Students are not locked into a particular level for their high school experience and doubling up in mathematics is allowed when feasible. All students must pass four years of Mathematics in order to graduate.

Summer assignments are required for some math courses.

MATHEMATICS DEPARTMENT COURSE SEQUENCE 2016-2017



^{*}AP Statistics can be taken concurrently with Course 3.

ELECTIVES

Introduction to Computer Science

Computer Science Principles AP Robotics

MCAS Math Prep

Computer Science AP Honors

Math Support

ALGEBRA, GEOMETRY & STATISTICS (COURSE 1)

Honors 367

College Prep 366

5 credits

This course is the first in a three-year sequence. Students will deepen and extend their understanding of linear and nonlinear functions as well as properties and theorems involving congruent and similar figures. Specific topics to be studies generally include: modeling and analyzing situations (graphically, numerically, symbolically, and verbally); functions and function notation; domain and range; solving systems of linear equations and inequalities; quadratic functions; coordinate geometry; transformations, including dilations; congruence; similarity; geometric constructions; and interpreting categorical and quantitative data. Graphing calculator applications will be incorporated into the course. Prerequisite: Grade 8 Math.

ALGEBRA 2, GEOMETRY & STATISTICS (COURSE 2)

Honors 369

College Prep 368

5 credits

This course is designed to extend the algebraic and geometric concepts learned in previous mathematical studies. Emphasis will be placed on modeling and analyzing situations (graphically, numerically, symbolically, and verbally). Specific topics to be studied generally include: quadratic, exponential, absolute value, step, and piecewise defined functions; complex numbers; solving systems of equations involving exponential and quadratic expressions; right triangle trigonometry; circles; conditional probability and counting methods; geometric probability. Graphing calculator applications will be incorporated into the course. Prerequisite: Course 1.

ALGEBRA 2, STATISTICS & PRECALCULUS (COURSE 3)

Honors 379

College Prep 378

5 credits

In this course, students will integrate and apply the mathematics they have learned in previous mathematical studies. Emphasis will be placed on four critical areas: (1) applying methods from probability and statistics to draw inferences and conclusions from data; (2) expanding the understanding of functions to include polynomial, rational, and trigonometric functions; (3) expanding right triangle trigonometry to include general (not necessarily right) triangles; and (4) consolidating functions and geometry to create models and solve contextual problems. The honors course will also cover limits. Graphing calculator applications will be incorporated into the course. Prerequisite: Course 2.

ACCELERATED PRECALCULUS, STATISTICS & CALCULUS (COURSE 3)

Honors 325 5 credits

In this course, students will integrate and apply the mathematics they have learned in previous mathematical studies. Emphasis will be placed on four critical areas: (1) applying methods from probability and statistics to draw inferences and conclusions from data; (2) expanding the understanding of functions to include rational, and trigonometric functions; (3) expanding right triangle trigonometry to include general (not necessarily right) triangles; and (4) consolidating functions and geometry to create models and solve contextual problems. Additionally, students in this accelerated course will master limits and explore derivatives. Graphing calculator applications will be incorporated into the course. Prerequisite: Course 2 Honors

APPLIED MATHEMATICS College Prep 315

5 credits

This course is designed for students who are not preparing for calculus but want to continue their study of mathematical ideas in the context of real-world problems. Students will investigate mathematics of voting systems, game theory, cryptography, financial management and graph theory. Graphing calculator applications will be incorporated into the course. Prerequisite: Course 3.

STATISTICS Honors 376 College Prep 375

5 credits

The focus of this course will be on using descriptive statistics to communicate ideas as well as basic inferential methods to predict possible outcomes. Topics covered include data analysis, data production, normal distribution, statistical inference, correlation, regression, and statistics in the media. This course includes extensive use of the graphing calculator and other computer software. It is particularly useful for students considering further study in psychology, social sciences or business. Prerequisite: Course 3.

CALCULUS AB Honors 339

5 credits

This is a demanding honors-level course that covers the concepts of differential and integral calculus and their application to real world problems. Graphing calculator applications are fully integrated into the course. Prerequisite: Calculus 3 Honors.

AP CALCULUS AB 342

5 credits

This is a demanding college-level course that utilizes the College Entrance Examination Board's AB Calculus syllabus and integrates the content of previous math courses. Topics included are limits, continuity, differentiation, applications of differentiation, integration, and applications of integration. Graphing calculator applications are fully integrated into the course. **All students enrolled in AP classes are required to take the May AP exam. Please note: there is a required summer assignment for this course.** Prerequisite: Course 3 Honors or Course 3 Accelerated Honors.

AP CALCULUS BC 341

5 credits

This is a rigorous college-level course that utilizes the College Entrance Examination Board's BC Calculus syllabus. This course covers all topics taught in Calculus AB plus additional topics such as infinite series and differential equations. Graphing calculator applications are fully integrated into the course. All students enrolled in AP classes are required to take the May AP exam. Please note: there is a required summer assignment for this course. Prerequisite: PreCalculus with Limits Honors or Course 3 Accelerated Honors.

AP STATISTICS 354 5 credits

This is a demanding college-level course that utilizes the College Entrance Examination Board's AP Statistics syllabus. Topics include, but are not limited to, using random samples, modeling using probability and simulation, and using statistical inference to confirm models. This course can be taken concurrently with PreCalculus with Limits or with AP Calculus. Graphing calculator applications are fully integrated into the course. All students enrolled in AP Statistics are required to take the May AP exam. Please note: there is a required summer assignment for this course. Prerequisite: Course 2 Honors, or Course 3 Honors.

AP COMPUTER SCIENCE 370

5 credits

The course will complete the AP syllabus started in Computer Science. Topics covered will include program design, loops, conditional statements, procedure functions, data types, data structures, arrays, records, computer hardware, block diagrams, inheritance, lists and programming style. The AP Computer Science A class and exam requires the potential solutions of problems be written in the Java programming language. All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course. Prerequisite: Computer Science Honors or AP Computer Science Principles.

AP COMPUTER SCIENCE PRINCIPLES 377

5 credits

This course is designed to introduce students to the central ideas of computer science, to instill ideas and practices of computational thinking, and to have students engage in activities that show how computing changes the world. The course is rigorous and rich in computational content, includes computational and critical thinking skills, and engages students in the creative aspects of the field. Through both its content and pedagogy, this course aims to appeal to a broad audience. **All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course.** Prerequisite: Introduction to Computer Science, Robotics or Computer Technology I.

COMPUTER SCIENCE Honors 371

2.5 credits

This is an entry course for AP Computer Science. The focus of this course is problem solving and programming. Prerequisite: Robotics or Introduction to Computer Science.

INTRODUCTION TO COMPUTER SCIENCE Unleveled 363

2.5 credits

This course is an introduction to computer science for students with no prior programming experience. Students will be exposed to conceptual ideas of computing and its influence on modern society. They will learn why certain tools or languages might be utilized to solve particular problems. In addition, students will develop programs using visual programming languages such as Scratch to create animated simulations, design games, and build internet applications.

ROBOTICS Unleveled 364

2.5 credits

This course uses a hands-on approach to introduce the basic concepts of robotics. Students will increase their computer programming knowledge using LEGO Mindstorms software. Topics include robotic modeling, design, planning, and control through building and testing increasingly more complex LEGO mobile robots.

MCAS MATH PREPARATION Unleveled 307

2.5 credits

This course is recommended for tenth-grade students who failed the mathematics section of the MCAS exam in the grade 8, for 10th grade students who would benefit from additional support prior to the 10th grade MCAS Math exam, and for 11th grade students who failed the 10th Grade MCAS Math exam. The class emphasizes the skills necessary to succeed on the MCAS examination, a test which all students must pass in order to graduate. Students must be assigned to the course. They may not enroll themselves in the course.

MATH SUPPORT Unleveled 305 MATH SUPPORT Unleveled 308

2.5 credits5 credits

A small number of students will be assigned to this course based on teacher recommendation. The course parallels College Prep level math courses and is designed to supplement the regular math class. The increased time for assignments and the focus on major course concepts will facilitate the students' performance in the regular math class and enhance their chances of success in math and science classes at the high school. The course does not count towards the twenty credits required in math for graduation.

SAT PREP Unleveled 154

2.5 credits

This course prepares students for the SAT exam. Students rotate between an English and Math instructor throughout the semester in order to prepare for both the Verbal and Mathematics portions of the exam. Focus will be on the content assessed by the exam but will also include test-taking strategies specific to the exam. Students taking this exam should take the SAT exam scheduled by the College Board at the end of the course.

MUSIC PROGRAM

The Music Department offers courses designed for the musical and aesthetic education of students with a wide variety of abilities and interests. The program provides opportunities to increase proficiency with a musical instrument or the singing voice through group performance and to study theory, harmony, song writing, ear training, piano, drumming, guitar, music history, songwriting and rock and jazz. In addition to these courses scheduled during the school day, various opportunities are provided through the extra-curricular program (Gospel Choir, Milton After-School Singers, Boys Group, Girls After, String Quartet, Chamber Orchestra, Saxophone Choir, Flute Choir, Percussion Ensemble, Brass Choir, Eastern District Music Festival, All State Music Festival, and SEMSBA Music Festival). The performance program (Band, String Ensemble, Chorus, and Jazz Ensemble) is designed to help a student develop the musical skills essential for quality performance in a musical organization. Each of the courses provides experiences with a variety of musical styles that encourage a student to appreciate music as a vehicle for expression. In addition, through rehearsals and concerts, a student is able to recognize the value of a disciplined collaboration and to take pleasure from the resulting experience. Electronic Music Lab: Part 1, Electronic Music Lab: Part 2, Music 3 and AP Theory seek to develop musicianship skills and keyboard playing. Songwriting and Rock and Jazz are classes that do not require the students to be musical performers, but rather to become educated audience members and evaluators. Beginner Drumming and Beginner Guitar give students a chance to learn to read music and play an instrument even if they have never played one before.

MUSIC DEPARTMENT COURSE SEQUENCE

Recommended sequence of courses for singers and instrumentalists:			
Grade 9	Electronic Music Lab, part I AND Chorus, Concert Band or String Ensemble		
Grade 10	Electronic Music Lab, part II AND Chorus, Concert Band or String Ensemble		
Grade 11	Music III AND Chorus, Concert Band or String Ensemble		
Grade 12	AP Music Theory AND Chorus, Concert Band or String Ensemble		
Recommended courses for all students (can be taken any year):			
Grades 9-12	Electronic Music Lab, part 1 and 2, Songwriting, Rock and Jazz Experience, Beginner Drumming, Beginner Guitar, part 1 and 2		

CHORUS 966 5 credits

In this course, students will learn about vocal technique, sight singing, and choral performance. A portion of each class is devoted to the fundamental theory of music (terms and symbols) as it pertains to the music being studied and to sight-singing. The major portion of each class is spent singing, learning about vocal technique, and preparing the music for performance. A great variety of styles is prepared and performed. Participation in all regular performances of the Chorus is required for successful completion of the course.

CONCERT BAND Honors* 968 Unleveled 967

5 credits

This ensemble is designed for wind and percussion players in grades 9-12 of high ability and experience. A major portion of the class is devoted to the development of individual and ensemble technique and the preparation of advanced symphonic band literature for performance. Members of this band will participate in numerous public performances and music festivals. During the fall, they will also perform at all of the home football games. Participation in all regular performances of the band is required for successful completion of the course. All members must take after school lessons on their individual instruments. The prerequisite for taking Concert Band is the successful completion of Concert Band in the previous year (at Pierce or at MHS) OR passing a performance audition with the Band directors.

JAZZ ENSEMBLE Honors* 958 Unleveled 957

5 credits

This is a high level Jazz Ensemble comprised of experienced members of the Milton High School Concert Band. This ensemble will participate in numerous public and private performances, competitions and festivals. A portion of this class is devoted to developing improvisational skills, arranging techniques and the study of jazz theory. A great variety of styles are performed. All members must take after school lessons on their individual instruments. Students must have an audition by the instructor to take this course. This class meets before school and during the evening.

STRING ENSEMBLE Honors* 920 Unleveled 911

5 credits

This course is intended for students from grades 9 through 12 who play a string instrument (violin, viola, cello, string bass) at a fairly high level of proficiency and are interested in performing in an ensemble. The prerequisite for String Ensemble is the successful completion of prior years in the Pierce Middle School String Ensemble OR passing a performance audition with the ensemble director. A major portion of this class is spent preparing repertoire and working on the techniques of string performance. Participation in all regular performances of the group is required for successful completion of the course, and each student must take ongoing lessons after school in order to be a member. Class rehearsal also includes a review of the fundamental elements of music.

ELECTRONIC MUSIC LAB: Part 1 Unleveled 901

2.5 credits

This course is an introduction to music and music technology. Students will learn how to read music notation, play the piano, and compose. Students will use the latest music technology including notation software, MIDI sequencing, Finale, Cakewalk Home Studio, and Band-in-the-Box. No previous musical experience is required to take this class.

ELECTRONIC MUSIC LAB: Part 2 Unleveled 902

2.5 credits

Any student who has successfully completed Electronic Music Lab: Part 1 should consider taking this course. Students will continue to develop their piano playing and reading skills. Aural skills, music analysis, harmony, sight-singing and the development of basic musicianship are introduced. This will be supplemented by more advanced techniques in MIDI digital sequencing using the Internet and other multimedia.

MUSIC III Honors 953

5 credits

Any student who has successfully completed Part 2 of Electronic Music Lab should consider taking this course. It is also strongly recommended for those planning to major in music in college. Students will continue to develop basic musicianship skills and work on composition and analysis. Students will be introduced to counterpoint and chromatic harmony.

AP MUSIC THEORY 944

5 credits

This course includes in-depth study of theory, harmony, analysis, composition, and history of music. Studies will develop a high level of proficiency in reading, notating, composing, sight singing and listening. The development of aural skills is the primary objective. All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course.

SONGWRITING Unleveled 948

2.5 credits

Throughout this course, students will be exposed to various techniques to write songs in various genres. Students will gain knowledge of structure and form in popular music, lyric writing, simple chord progressions, music technology, and different markets in the songwriting industry. Students will have the opportunity to use Mixcraft software to create backup tracks as well as gain skills in sampling and layering. The music lab also gives students the opportunity to use composition software using notation, band-in-a-box software and electronic pianos. Students who choose to can write songs using instruments that they already play.

THE ROCK & JAZZ EXPERIENCE Unleveled 955

2.5 credits

Students will study some of the most prominent figures and events in American popular music history. Early Jazz, New Orleans, Swing, Bebop, Avant-Garde, The Blues, Motown, the Beatles and British Invasion, Classic Rock, Hip Hop and Alternative will be topics of discussion, analysis and listening. No musical training is necessary to take this course.

BEGINNER DRUMMING Unleveled 899

2.5 credits

Students will learn the basics of beginning individual drumming. The curriculum will include music theory, composition and the reading of rhythmic notation and playing music for small percussion ensemble using available percussion instruments.

BEGINNING GUITAR 1 Unleveled 949

2.5credits

This course is designed for the beginner guitar student looking to learn the basics of music notation, chords, picking and strumming technique. The students will learn to perform solo, duet, and ensemble pieces in a group setting.

BEGINNING GUITAR 2 Unleveled 941

2.5 credits

This course is designed for the continued study of guitar. Students will learn more advanced concepts in music notation, picking and strumming technique and chord structures. The students will perform in solo, duet and ensemble pieces in a group setting. **Requirements:** Students must complete Beginning Guitar 1 course. If they have not completed they must pass an entrance exam which displays proficiency of reading notation, chord changes, strumming technique and a written component.

*Honors Credit for Music Courses

Honors credit for MHS Concert Band, String Ensemble, Jazz Ensemble, Chorus

Students who opt to take Concert Band, String Ensemble, Jazz Ensemble or Chorus for Honors credit will do all of the work required of the course PLUS:

- 1. Performance each student will learn and perform a piece that is on an approved list each term. The selection of the solo must be made by the student no later than the 2nd week of each term. Every two weeks, the student must submit a tape recording of him/her playing the solo to show the progress throughout the term. During the last week of the term, the student must either submit a final tape recording of the performance OR perform the piece live in front of the MHS music faculty. The list of approved pieces will include District and SEMSBA audition solos, plus other grade 4-6 pieces that the directors choose from repertoire lists. All performance grades will be assessed by the four music directors at MHS.
- 2. Scales, etudes and sight reading each student will be given performance assignments for scales, etudes and/or sight reading and will be tested on them throughout the term.
- 3. Term project each student will do one project each term. The maximum number of terms that a student can choose the same project is two. The student will choose his/her project and specific topic during the second week of the term. The project is due the last day of the term. The approved projects include:
 - Book report the student will read a book from the music department approved book list and write a book report in the format required by the music department
 - Concert review the student attends an approved concert and writes the critique using a specific concert review format that is required by the music department
 - Analysis the student will analyze either a) a piece that his/her ensemble is playing or b) a solo that he/she is learning. The analysis must be in the specific format required by the music department.
 - Ensemble the students will organize an ensemble (not a group that already exists) of 2-5 performers; prepare a piece from the approved list; submit a recording of the performance OR perform it live for the class director
 - Propose a project the student will design his/her own project and submit if for approval

PHYSICAL EDUCATION/HEALTH PROGRAM

The Milton High School graduate will demonstrate an awareness of and an ability to practice health-enhancing behaviors as part of the student expectations for learning. The implementation of the course will provide students with knowledge and proficiency in a variety of activities, promote a sense of quality physical fitness, and provide students with the opportunity for active, healthy, social interaction in peer group activities. Health lessons, which are part of the curriculum, and aligned with the Massachusetts Department of Education Frameworks, are designed to give students the information they need to make responsible decisions in their personal lives pertaining to the health issues of today. All classes are co-educational.

In order to graduate from Milton High School, all students are required to take and pass four years of physical education/health for a total of ten credits.

The four-year physical education program includes units in fitness testing, weight training, cardio and conditioning, soccer, speedball, football, lacrosse, softball, archery, track and field, basketball, volleyball, badminton, team handball, and floor hockey.

The four-year health program includes units in CPR, First Aid, tobacco, alcohol and drug education, sexually-transmitted infections, nutrition, fitness and eating disorders, conflict resolution, teen-dating violence, stress, suicide, and mental health. Student work includes reading assignments, written reports, problem solving, project-based learning and oral presentations.

PE/Health grade 9 and 10 Unleveled 009 **PE/Health grade 11 and 12** Unleveled 010

2.5 credits

2.5 credits

SCIENCE PROGRAM

Today's digital world is one in which scientific issues such as climate change, stem cell research, and the search for alternative energy sources are constantly in the headlines. All citizens in our increasingly global society must have an understanding of basic scientific principles to function in today's world. To this end the Science Department offers a variety of courses to serve the student who desires to study only the basics as well as the student who wishes to major in science in college.

SCIENCE DEPARTMENT COURSE SEQUENCE				
Grade 9	Grade 10	Grade 11	Grade 12	
	Chemistry I -	AP Biology AP Chemistry AP Physics I	AP Biology AP Chemistry	
Biology I (Biology MCAS)	OR The Science of Life (For students who have not passed the Biology MCAS.)	Physics I Intro to Biotechnology Biotechnology Anat. & Physiology Environmental Science	AP Physics I or II Physics I Intro to Biotechnology Biotechnology Anat. & Physiology	
Intro to Biology —	OR Biology I (Biology MCAS) Engineering by Design	(Semester A and or B) OR Chemistry I Engineering by Design	Environmental Science (Semester A and or B) Engineering by Design	

Requirements: Three years (15 credits) of science is required for graduation.

MCAS Requirement: In addition to English and Math, students will have to meet an additional graduation requirement in Science, Technology and Engineering. At Milton High School, most students will take the Biology MCAS to satisfy this requirement. Students will take the Biology MCAS when they take the course Biology I. Once the student has passed the Biology MCAS (or another science MCAS), they will have fulfilled the Science portion of the MCAS graduation requirement.

INTRODUCTION TO BIOLOGY College Prep 408

5 credits

This course lays the foundation for the study of high school biology. Emphasis will be placed on the development of scientific inquiry skills in biology and the development of key concepts in chemistry and biology that prepare students for Biology I. Students who take Introduction to Biology as 9th graders will be required to take Biology I as 10th graders.

BIOLOGY I Honors 412 College Prep 423

5 credits

Topics include: the chemical basis of life (elements, atoms and molecules), the cell (structure and function of membranes and organelles in plant and animal cells) how cells obtain chemical energy (photosynthesis and cellular respiration) the cellular basis of inheritance, patterns of inheritance, concepts of evolution, concepts of ecology, introduction to the systems of the human body, and a survey of the characteristics of the major phyla. Laboratory experiments and observations are an integral part of the course and include enzyme analysis, microscope observation, diffusion, dialysis and biotechnological studies. Students who take Biology as 9th graders will take the Biology MCAS while in 9th grade.

CHEMISTRY I Honors 422 College Prep 433

5 credits

Students must have completed Biology I and Algebra I, having demonstrated a proficiency in both subjects. Topics include: properties of matter, atomic structure and nuclear chemistry, periodicity, chemical bonding, chemical reactions and stoichiometry, states of matter, kinetic theory and thermo chemistry, solutions, rates of reaction and equilibrium, acids and bases and reduction-oxidation reactions. Laboratory exercises are an integral part of the course and focus on making observations of chemical reactions, recording data and calculating and interpreting results based on quantitative data obtained during lab exercises.

PHYSICS Honors 442 College Prep 443

5 credits

Students must have completed Biology I, Algebra II, and Chemistry I, having demonstrated a proficiency in those subjects. In Physics we study the physical laws of the Universe through laboratory investigations. In this class you will learn such things as why black holes are black, why it is easier to drive a car on a banked curve than a flat one and why you are safe inside a car during a lightning storm. Other topics include kinematics, dynamics, electricity and magnetism and optics.

HUMAN ANATOMY AND PHYSIOLOGY Honors 451 College Prep 453 5 credits Successful completion of Biology I and Chemistry I are prerequisites. All topics relate to the structure and function of the human body: cells, tissues and systems such as skeletal, muscular, nervous, digestive, circulatory, excretory, respiratory, endocrine and reproductive. Laboratory experiments and observations are an integral part of the course and include microscope observation, dissection, and specimen observation.

THE SCIENCE OF LIFE College Prep 450

5 credits

This year long course is designed for students who did not pass the Biology MCAS and is comprised of different subjects for each semester. Semester 1: This portion of the course is a review of the major topics of Biology I in preparation for the Biology MCAS given in February. Topics include: the chemical basis of life (elements, atoms and molecules), the cell (structure and function of membranes and organelles in plant and animal cells) how cells obtain chemical energy (photosynthesis and cellular respiration) the cellular basis of inheritance, patterns of inheritance, concepts of evolution, concepts of ecology, introduction to the systems of the human body, and a survey of the characteristics of the major phyla. Laboratory exercises will include microscope observations, dissection and specimen observation. Semester 2: Chemistry of Life: This portion of the course is an introduction to chemistry. Through a lab-based approach, students will study properties of matter, atomic structure, periodicity and bonding. Emphasis will be given to mastery of the use of dimensional analysis; a type of problem solving used extensively in Chemistry I.

INTRODUCTION TO BIOTECHNOLOGY College Prep 404

2.5 credits

This semester long Biotechnology course will introduce students to the concepts, techniques, and applications associated with Biotechnology. This is an introductory class that will include such topics as making reagents, carrying out experiments including DNA and Protein Electrophoresis, Protein Purification, Chromatography, and looking at the information those experiments yield. The Course will also discuss various applications of Biotechnology including genetically modified organisms, pharmacology, and the ethical implications of manipulating genes. **Prerequisites** include having passed both Biology and Chemistry. Seniors will be given preference when registering for the course.

BIOTECHNOLOGY Honors 402

5 credits

This full year Biotechnology course will introduce students to the concepts, techniques, and applications associated with Biotechnology and Molecular Biology. This upper level course will address such topics as making reagents and experimental methods including DNA and Protein Electrophoresis, Western Blots, Protein Purifications, Chromatography, Protein Assays, Purity studies, and looking at the information those experiments yield. Additionally, the course will cover gene regulation, antibody production, and theories in immunology, genetically modified organisms, pharmacology, and the ethical implications of manipulating genes. **Prerequisites** include having passed both Honors Biology and Honors Chemistry. Seniors will be given preference when registering for the course.

ENVIRONMENTAL SCIENCE PART A College Prep 452

2.5 credits

This course is an interdisciplinary course that uses a student's knowledge of chemistry and biology to investigate broad themes in environmental science to understand the relationships between systems in the natural and human-made world. The course is open to Juniors and Seniors who have completed biology and chemistry. Part A investigates the Earth and its resources including the atmosphere and the oceans, ecosystems, population and land and water use.

ENVIRONMENTAL SCIENCE PART B College Prep 462

2.5 credits

This course is an interdisciplinary course that uses a student's knowledge of chemistry and biology to investigate broad themes in environmental science to understand the relationships between systems in the natural and human-made world. The course is open to Juniors and Seniors who have completed biology and chemistry. Part B investigates energy resources and consumption, pollution and global change. The course includes a strong laboratory and field investigation component and includes discussions of current environmental issues such as global warming, population growth, energy dependence, etc. Students will be expected to complete a long-range environmental study project.

ENGINEERING BY DESIGN Unleveled406

2.5 credits

This half-year elective will explore a project based course exposing students to the fundamentals of engineering and the design process. Students will develop their ability to solve real-world problems and design solutions. Students will take their conceptual ideas and create prototypes, along with making necessary modifications to all assigned projects, and marketing their final product. Projects can be developed from the fields of Biomedical, Chemical, Civil, Electrical, Environmental, or Mechanical engineering.

MCAS SCIENCE PREPARATION Unleveled 407

2.5 credits

This semester course is recommended for students who would benefit from additional support prior to taking the Biology MCAS exam. The class emphasizes the skills necessary to succeed on the MCAS examination, a test which all students must pass in order to graduate. Students must be assigned by their Biology teacher to this course in order to enroll.

Advanced Placement Sciences at Milton High School

Advanced Placement courses in Biology, Chemistry, and Physics are offered at MHS. AP Biology and AP Chemistry are open to all juniors and seniors who have successfully completed Biology I and Chemistry I. Before deciding to take an AP Science course, students and their families need to be aware of the following:

- All courses are taught using college-level texts.
- The advanced nature of these courses dictates that a significant amount of work must be accomplished independently by the student. Summer and other vacation assignments are required of all students.
- These are college-level courses and as such there will be fewer exams and no extra-credit opportunities. Every exam, lab report and other assignment has a greater significance when there are fewer assessments given.
- All AP Science students are required to take the appropriate AP Exam in May.

AP BIOLOGY 431 5 credits

This is a college-level course that includes in-depth coverage of the following topics: chemistry of life, cells (structure and function, energetics, communication, division) heredity, gene activity, biotechnology, evolution and phylogeny, organism form and function, and ecology. Mastery of content focuses on applying and connecting essential knowledge in and across domains. Laboratory experiences and classroom activities are designed to foster the development of advanced inquiry and reasoning skills as well as the application of mathematical tools for data analysis.

AP CHEMISTRY 432 5 credits

This college-level course includes in-depth study of the following topics: atomic theory and structure, chemical bonding, nuclear chemistry, states of matter including gasses, kinetic molecular theory, liquids and solids and solutions, reactions including reaction types, stoichiometry, equilibrium, kinetics and thermodynamics as well as descriptive chemistry which includes chemical reactivity, study of relationships in the periodic table and an introduction to organic chemistry. Laboratory work is an integral part of the course and focuses on making observations of chemical reactions, recording data and calculating and interpreting results based on quantitative data obtained during lab exercises. A dedicated laboratory notebook is required of all students as some colleges may require it as evidence of a rigorous laboratory curriculum.

AP PHYSICS 1 419 5 credits

This Algebra-Based course is the equivalent of a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits. A student does not need to have taken physics before in order to take this course.

AP PHYSICS 2 420 5 credits

This Algebra-Based course is the equivalent of a second-semester college course in algebra-based physics. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; and atomic and nuclear physics. A student must have successfully completed either honors physics or AP Physics 1 before taking this course.

SOCIAL STUDIES PROGRAM

The Social Studies Department offers a number of courses varying in subject matter and academic challenge. To meet graduation requirements, all students must successfully complete courses carrying at least fifteen credits, **including ten credits in United States History.**

SOCIAL STUDIES DEPARTMENT COURSE SEQUENCE			
9 th Grade	10 th Grade	11 th Grade	12 th Grade
MODERN WORLD CULTURES Unleveled	U. S. HISTORY I Honors College Prep	U. S. HISTORY II Honors/ College Prep	There is no requirement for grade 12. See electives below.
		~0r~	
		AMERICAN EXPERIENCE Hon	
		~or~	
		AP U. S. HISTORY	

Elective Courses:

9 th Grade	10 th Grade	11 th Grade	12 th Grade
Law & Government	Law & Government	Psychology I & II AP Psychology AP European Hist. Law & Government	Psychology I & II AP Psychology Contemporary Issues AP European Hist. Law & Government

MODERN WORLD CULTURES Unleveled 543

5 credits

Modern World Cultures is designed to provide freshmen students with an awareness of the ways certain major economic, political, social, and cultural trends or movements have affected the modern world. The course begins with the Age of Enlightenment and the French Revolution and continues into the twentieth century. Students develop skills in historical study, including critical thinking, primary source and data analysis and historical research and writing.

UNITED STATES HISTORY I Honors 532 College Prep 533

5 credits

U.S. History I is a political, social, and economic examination of events that shaped the creation and progression of the United States, with a focus on major themes in early American history: the American Revolution, the creation of our Constitution, expansion Westward, the institution of slavery and the American Civil War. The course provides a foundation of historical knowledge in American history, and students continue to develop skills in the areas of historical inquiry and critical thinking.

UNITED STATES HISTORY II Honors 535 College Prep 536

5 credits

U. S. History II continues the study of American History. Curriculum begins with the Era of Reconstruction and continues through the present. Students examine cultural interactions, policy issues, economic development, and social change, and apply their understanding of historical analysis to better interpret the major changes and transitions in American history.

AP UNITED STATES HISTORY 531

5 credits

This course is intended for advanced students who are capable of doing college-level work. An intensive study of American history, AP US History is offered to students who have already completed Modern World Cultures and US History I. The course reviews topics and themes presented in United States History I, and continues an examination of American history through our contemporary era. Supplementary readings and research are required, as the course is designed to prepare students for the Advanced Placement Examination in United States History. All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course.

THE AMERICAN EXPERIENCE: U.S. HISTORY Honors 554

5 credits

This course, coupled with the English component of American Experience, examines American history from the Civil War to the present. Students examine cultural interactions, policy issues, economic development and social change in American history, and make correlations between the historical study and their study of English literature. The course is team-taught by members of the English and Social Studies Departments. Credit earned applies to the grade 11 requirements in both subjects.

AP EUROPEAN HISTORY 510

5 credits

This course is intended for advanced students who are capable of doing college-level work. This course is an intensive study of European History, from 1450 – the present. It is offered to students who have completed two years of history, including Modern World Cultures. The course examines cultural, economic, political and social developments that played a fundamental role in shaping the world. The focus of instruction is on critical thinking skills and historical analysis. **All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course.**

PSYCHOLOGY I College Prep 563

2.5 credits

An introduction to the study of human behavior, Psychology I aims to help students understand themselves and their relation to others. Topics include emotional development, processes of learning, Sigmund Freud, and abnormal psychology. Students must complete two years of Science before taking Psychology I.

PSYCHOLOGY II College Prep 573

2.5 credits

This course is open to students who have successfully completed Psychology I as well as two years of science. Topics include various abnormal behaviors, such as neuroses, psychosomatic disorders, schizophrenia, and paranoia. Causes and therapies are examined. Students must complete two years of Science before taking Psychology II.

AP PSYCHOLOGY 561

5 credits

This course is intended for advanced students who are capable of doing college-level work. Students must complete two years of Science before taking AP Psychology, and can take the course if they have already taken Psychology I and/or II. This course entails extensive reading, writing, and research, and topics covered include the biological basis of behavior, research methods, personality and emotional development, cognition, social psychology, abnormal psychology, and the works of Pavlov, Skinner, Jung, Freud, Piaget, and Erickson. All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course.

CONTEMPORARY ISSUES Honors 524

5 credits

This course is offered to students who have completed three years of History. Students closely examine selected historical topics that have occurred in the last three decades, with an emphasis on America's role in world politics. Students will interpret, analyze and form opinions about issues that exist in today's world. Students are exposed to extensive reading, research and writing.

LAW AND GOVERNMENT Unleveled 525

5 credits

This course offers students an opportunity to study the institution and process of the American government, with a focus on the American legal system. All students who take Law and Government participate in Milton High's Mock Trial program, which includes trial competition with other schools in the state. Students will be required to participate in the state-wide competition, which will include after-school commitments in January and February. Other topics include the concept of individual freedoms and citizen responsibility, the tenets of the US Constitution, and an in-depth study of the electoral process. Students can take this course for two consecutive years.

TECHNOLOGY EDUCATION

The Technology Department offers a wide variety of courses, from occupational skill courses such as Consumer Car Care to Digital Video and Computer Technology courses. The courses feature hands-on application of science, mathematics, and communications as students investigate methods to solve practical, complex problems to increase their awareness and understanding of our world. The Technology Education curriculum emphasizes the concepts of teamwork, critical thinking, and project-management.

TECHNOLOGY EDUCATION COURSE SEQUENCE			
Grade 9		Grades 10, 11 and 12	
Tech Essentials	2.50	Computer Technology I	2.50
Computer Technology I	2.50	TV Production	2.50
TV Production	2.50	*MHS Wildcat News	2.50
Student Technology Assistance Team	2.50	Woodworking I	2.50
Woodworking I	2.50	Student Technology Assistance Team	2.50
*Woodworking II	2.50	*Woodworking II	2.50
		Consumer Car Care	2.50
		*Automotive Maintenance	2.50

^{*} These courses have a prerequisite.

TV PRODUCTION Unleveled 823

2.5 credits

Have you ever watched a show, movie, or news program and thought "How is all of that put together?" Then Intro to TV Production and Video Editing is the class for you. Students will receive hands on training of all aspects of media production, including editing, camera work, pre-production planning, production, post-production storytelling through digital media utilizing iMovie software and digital film cameras. Students will work individually and in groups, incorporating video, still images, sound, voice over, text, transitions and effects. Students should expect to be filming outside of class time. Students will become proficient in IMovie and will be introduced to Final Cut Pro X video editing software. Class held in the state of art TV Studio and MAC computer lab.

MHS WILDCAT NEWS Unleveled 822

2.5 credits

This course explores the rapidly evolving field of broadcast journalism. Students will explore advanced elements of television broadcasting. This course will include all the mechanics of video production including directing, scriptwriting, reporting, camera techniques, and digital video editing. Students will research, gather, and analyze information to create video productions. Those enrolled will videotape school activities, learn advanced techniques in audio and video recording, and will become proficient in video editing using Final Cut Pro X. Students in this class will help in pre-production, taping, and post-productions of a daily/weekly high school television newscast called MHS Wildcat News. Students will get experience on camera and behind the scenes for MHS Wildcat News as it is broadcast to the school and to the entire town of Milton. Students will also be required to do outside of school videotaping of events using the schools equipment. Class held in the state of art TV Studio and MAC computer lab. Prerequisite: TV Production.

TECHNOLOGY ESSENTIALS Unleveled 810

2.5 credits

Freshman, would you like to learn technological skills to help you throughout your high school career? If so, Technology Essentials is the course for you! Technology Essentials is a half-year course designed to help students become more effective and efficient computer/technology device users. Students will utilize desktop computers, Chromebooks and Ipads to complete Word/Google Docs, Excel/Google Sheets, PowerPoint/Google Slides and Web 2.0 projects. This 21st Century course also helps students understand internet safety, securing on-line privacy, understanding the impact of their digital footprint (currently and in the future), cyber bullying, and the important information regarding social media sites.

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COMPUTER TECHNOLOGY I Unleveled 645

2.5 credits

The goal of this one semester course is to explain how technology impacts our current and future lives as students/workers, consumers and citizens. Topics will include: hardware, operating systems, computer maintenance, online safety, computer ethics, web design and career explorations. Students will participate in several relevant, hands-on learning activities. Students will utilize desktop computers, Chromebooks and Ipads to complete "real world" projects. This course will provide students the opportunity to look inside a computer, assemble a computer, and learn strategies to solve computer related issues.

STUDENT TECHNOLOGY ASSISTANCE TEAM (STAT) Unleveled 831

2.5 credits

This course is designed as an internship for students interested in technology. Students in this course are trained to be the first point of contact for teachers in need of assistance with Milton High School technology such as Chromebooks, iPads, and Smartboards. Students will assist in distributing and managing devices, troubleshoot problems with devices, relay problems with software and hardware to the IT Department, develop training materials for various pieces of technology, and assist teachers with the use of technology during their classes. Students must complete an interview in order to be considered for this course. A maximum of two students per period will be assigned to this course each semester.

WOODWORKING TECHNOLOGY I Unleveled 618

2.5 credits

This course will introduce the student to the designing, planning and manufacturing of wood products. Students will be required to display craftsmanship and safe working habits and procedures in the use of industrial-type machinery and power tools. Some work on computer aided design is part of this course.

WOODWORKING TECHNOLOGY II Unleveled 621

2.5 credits

Woodworking Technology I is a prerequisite. This is an advanced course in which the student will enter into the sophisticated areas of furniture production and methods of industry. Some work on computer-aided design is part of this course. Prerequisite: C or better in Woodworking Technology I.

CONSUMER CAR CARE Unleveled 637

2.5 credits

This course is designed to introduce the student to the theory of operation and routine maintenance requirements of an automobile. Safety working on and around automobiles is highly stressed in this course.

AUTOMOTIVE MAINTENANCE Unleveled 650

2.5 credits

This course is open to seniors only who have successfully completed and passed Consumer Car Care. This course will study the automotive systems not covered in Consumer Car Care. This course will allow the students to perform maintenance and repairs on their own vehicle and other vehicles that need service. Prerequisite: C or better in Consumer Car Care.

VISUAL ARTS PROGRAM

The Department of Visual Arts' overall goals are to increase the student's awareness of visual concepts; to enable students to organize and direct the focus of their work through independent study and goal setting; to refine the technical skills necessary in traditional art-making as well as to develop exploratory and experimental approaches to self-expression; to formulate original concepts and relationships between objects and people using creative problem solving techniques and personal reflection; and to forge interdisciplinary connections between cultures, past artistic endeavors and the individual's personal concepts. Through a wide variety of art experiences, students are provided with the opportunity to explore their creative potential and to develop accompanying skills.

VISUAL ARTS PROGRAM COURSE SEQUENCE			
Reco	Recommended sequence of courses for Student Artists and Student Photographers:		
Grade 9	Foundations of Art and 2D Studio Art (Semesters 1 and 2)		
Grade 10	Digital Photography I and Digital Photography II		
	2D Studio Art and 3D Studio Art		
Grade 11	Advanced Studio Art (full year)		
	Digital Photography I and Digital Photography II		
Grade 12	AP Studio Art / Fine Arts & Photography (full year)		

Recommended sequence of courses for all students:			
Grades 9	Foundations of Art / Visual Literacy I		
Grade 10	2D Studio Art / 3D Studio Art		
	Digital Photography I / Digital Photography II		
	Visual Literacy I / Visual Literacy II		
Grade 11	2D Studio Art / 3D Studio Art		
	Digital Photography I / Digital Photography II		
	Visual Literacy I / Visual Literacy II		
Grade 12	2D Studio Art / 3D Studio Art		
	Digital Photography I / Digital Photography II		
	Visual Literacy I / Visual Literacy II		

FOUNDATIONS OF ART Unleveled 918

2.5 credits

This introductory level course is open to any student in grades 9-12. It is recommended for 9th grade students interested in further pursuing the Visual Arts. Students will explore the creative process, which include a variety of media, techniques, and concepts from traditional art-making. The areas of: drawing, perspective, collage, printmaking, color theory introducing painting, and art history are among the areas intended to be covered. The Foundations of Art course is a half year studio based course intended for students to learn thru the process of creating and has no prerequisite.

VISUAL LITERACY I Honors 938 Unleveled 935

2.5 credits

In this half year course students will learn the building blocks of film design including composition, movement, sound design and set/costume design by watching and analyzing films. Students will develop the tools to describe, analyze and evaluate films. Visual Literacy is intended to give students a comprehensive look at the visual world they live in so that they can better understand, interpret, and engage with that which surrounds them. Most class work will involve watching, discussing and writing about films.

VISUAL LITERACY II Honors 939 Unleveled 936

2.5 credits

Prerequisites: Visual Literacy I

Visual Literacy through Film is a prerequisite for this course. This half year course will continue to expand students' knowledge of film production and connect these concepts to other medias including web, television, video games and advertising. It is intended to give students a comprehensive look at the visual world they live in so that they can better understand, interpret, and engage with that which surrounds them. Most class work will involve watching, discussing and writing about films and other media.

2D Studio Art Honors 907 Unleveled 926

2.5 credits

Prerequisites: Foundations of Art

Successful completion of Foundations of Art is a prerequisite for this course. The fundamentals of representing accurate details, people, space and form on a two dimensional surface will be covered. An emphasis is placed on developing artistic behaviors. Student will learn how to experiment with materials with openness and inventiveness; develop their drawing skills and techniques through purposeful practice; and develop original and personally relevant concepts. The execution of their artwork should reflect the depth and breadth these preparations. This course serves as a prerequisite for Advanced Studio Art. This half year course is recommended to any art student intending to consider further study in the Visual Arts.

3D Studio Art Honors 909 Unleveled 914

2.5 credits

Prerequisites: Foundations of Art

Successful completion of Foundations of Art is a prerequisite for this course. The fundamentals of three dimensional designs will be covered. An emphasis is placed developing familiarity with a range of three dimensional materials such as clay, wire, paper etc. As the course progresses student will be encouraged to develop personally meaningful concepts. This course serves as a prerequisite for Advanced Studio Art. This half year course is recommended to any art student intending to consider further study in the Visual Arts.

Advanced Studio Art Honors 912 Unleveled 923

5 credits

Prerequisites: Foundations of Art and either 2D Studio Art or 3d Studio Art.

Advanced Studio Art is intended for students that have successfully completed Foundations of Art and either 2D Studio Art or 3d Studio Art. This year long course is essential for the student planning to advance to AP Studio Art / Fine Art & Photography. Students will be introduced to media and techniques in both two-dimensional work and some three-dimensional work. Students will explore a variety of mediums and create works for college portfolio and art supplemental submissions. There will be a focus and emphasis placed on art history and the Elements and Principles of Design. This course is recommended to be taken during junior year.

DIGITAL PHOTOGRAPHY I Honors 904 Unleveled 925

2.5 credits

Prerequisite: Foundations of Art.

Open to any sophomore, junior or senior who has successfully completed Foundations of Art. The Digital Photography course will cover the following: basic digital camera operation using a variety of modes, composition and use of the nine zone grid. Using Adobe Photoshop CS2 as a digital darkroom, students will explore many tools and multiple photographic effects. Students will investigate the history of photography through units covering: still life photography, portraits, landscape photography, and macro photography. Students will incorporate an assortment of technology to present their works which include: Photo Story, Windows Movie Maker, and Slideshows. This course is a pre-requisite to Digital Photography II or AP Photography.

DIGITAL PHOTOGRAPHY II Honors 921 Unleveled 922

2.5 credits

Prerequisite: Foundations of Art, Digital Photography II.

Open to students who have successfully completed Digital Photography I and are fluent in the use of Adobe Photoshop CS2. This course is intended for the student photographer interested in continuing an exploration of Digital Photography and may be submitting an AP Photography Portfolio. Students will be challenged to seek personal and unique solutions within the parameters of Adobe Photoshop CS2. Through class discussion, critiques, reflective essays, and the history of photography students will explore more in-depth subject matter and build upon works and processes learned in Digital Photography II.

AP STUDIO ART / Fine Art & Photography 915

5 credits

Prerequisites Foundations of Art, 2D Studio Art or 3d Studio Art, and Advanced Studio Art unless you have permission from the teacher of AP Studio Art. AP Studio Art course and the photography component are taught as one course and are open to seniors committed to submitting a portfolio to the Advanced Placement Program in May. Seniors are encouraged to have taken the following courses in sequence in order to be eligible: Foundations of Art, either 2D Studio Art or 3d Studio Art, and Advanced Studio Art. Photography students are required to have taken: Digital Photography I and Digital Photography II (which may be taken simultaneously). The AP art portfolio consists of 24 pieces of work within three separate sections: Breadth, Concentration, and Quality. AP Studio Art Portfolios are evaluated based on the Elements and Principles of design, concept, and creativity. All students enrolled in AP Studio Art will be required to submit an AP Portfolio in May.

WORLD LANGUAGES PROGRAM

The study of languages is integral to a well-rounded education in today's global society. We in the World Language Department feel that every student can and should study at least one world language. The study of languages builds skills of listening, speaking, reading, writing, and promotes understanding and appreciation of cultural differences. Learning a world language supports academic achievement, promotes understanding of other cultures and peoples, and opens opportunities for employment not only in business but also government, international relations and law, communications, travel, publishing and scientific research, among others.

The World Languages Department offers full six-year programs in French, Spanish and Latin. Milton students who have successfully completed World Language study in grades 1 through 5 (Spanish Elementary and French Immersion Programs), and three years of that same language at Pierce Middle School (French Immersion or Spanish), usually begin their high school study of world languages with the third-year level of that language. Likewise, students who have successfully completed three years of Latin at the Pierce Middle School usually begin with the third-year Latin course at the High School.

Students of French, Spanish and Latin may also begin to study an additional language at the High School. Generally, they begin the new language at the second level. In all languages offered, Honors courses are accelerated and require above average past achievement.

French, Spanish, and Latin students are encouraged to take advanced classes and to prepare for the SAT Subject tests* and the Advanced Placement Language exams. All students in the Advanced Placement Language course are required to take the test.

* More information at: http://sat.collegeboard.org/about-tests/sat-subject-tests. French, Latin and Spanish SAT tests are offered several times a year (Spanish and French with listening in November). SAT Subject Tests allow students to differentiate themselves in the college admission process. Students should discuss with their teachers the best time to take the test.

WODED I ANGUA CE COUDE CEQUENCE				
WORLD LANGUAGE COURSE SEQUENCE				
SPANISH PROGRAM		<u>LATIN PROGRAM</u>		
SPANISH I		LATIN I		
\downarrow		\downarrow		
SPANISH II		LATIN II		
\downarrow		\downarrow		
SPANISH III		LATIN III		
\downarrow		\downarrow		
SPANISH IV		LATIN IV		
\downarrow		\downarrow		
SPANISH V or SP	ANISH AP LANGUAGE	LATIN V or LATIN AP		
-		↓ —		
SPANISH VI		LATIN VI		
FRENCH AS A SECO	OND LANGUAGE (F.S.L.) AN	D FRENCH IMMERSION PROGRAMS (F.I.)		
F.S.L. PROGRAM		F.I. PROGRAM		
FRENCH I		NA		
.l.		IVA		
FRENCH II		NA		
		IVA		
¥ EDENCH III		NIA		
FRENCH III		NA		
PDENCH IV		EDENCH BAAEDGION W		
FRENCH IV	\leftrightarrow	FRENCH IMMERSION IV		
V		\		
FRENCH V	\leftrightarrow	FRENCH IMMERSION V		
\		↓		
FRENCH VI	\leftrightarrow	FRENCH AP or FRENCH CONNECTIONS VI		
		(may be followed by AP)		
		• • • • • •		
		FRENCH CONNECTIONS VII		

^{↔:} This symbol illustrates that students can transfer from Immersion to Non-Immersion classes or vice versa in accordance with their language proficiency.

SPANISH COURSE SEQUENCE

Students, who have successfully completed the Spanish Program at the elementary level, and 3 years of Spanish at Pierce Middle School, will enter *Spanish III* in High School.

Students, who have not completed the Milton Elementary Spanish program and the 3 years of Spanish at the Middle School, will enter *Spanish I* at the High School. Students will begin in *Spanish I* if:

- They come from a district that did not offer elementary and middle school Spanish programs
- ➤ They failed two or more years of Spanish at Pierce Middle School
- ➤ They did not take a language at Pierce Middle School

Students with some academic background in Spanish, or some other meaningful exposure to the language, will be assessed and placed accordingly. Students who studied French or Latin at the middle school and who wish to start Spanish at the High School may begin in the second level, if successful on the placement test.

Spanish students are encouraged to take advanced classes and to prepare for the Spanish SAT and the Spanish Language Advanced Placement Language exams. All students in the Advanced Placement Language course are required to take the test.

FRENCH IMMERSION AND NON-IMMERSION

The French program offers immersion classes (French Immersion IV-VII) and non-immersion classes (French as a Second Language I-VI). All French immersion classes are open to non-immersion students depending on their level of achievement.

Students will begin their study in *French I* if:

- ➤ They never studied French
- > They did not take world language classes at the middle school level
- They come from another district and never studied French

Students with some academic background in French or some other meaningful exposure to the language will take a placement test and be placed accordingly. Students who studied Spanish or Latin at the middle school and who wish to start French at the High School may begin in the second level, if successful at the placement test.

The High School French Immersion program is a four-year sequence of courses designed for students who have successfully completed all courses in the French Immersion Program from grades 1-8. French Immersion IV is the first class of the four-year sequence. Students in French Immersion who experience difficulty will take a placement test and may be placed in non-immersion classes.

Immersion and non-immersion students are both encouraged to take advanced classes and to prepare for the SAT French, the Advanced Placement Language and the internationally recognized Diploma of Studies of the French Language exams. All students in the Advanced Placement Language course are required to take the test.

LATIN

Students who have successfully completed 3 years of Latin at Pierce Middle School will enter high school in Latin II or III.

Students wishing to study Latin from the beginning may do so at the High School (*Latin I-VI*). Qualified students will be able to take classes to prepare for the Advanced Placement Latin exam.

Students will begin their study in *Latin I* if:

- > They come from another district and never studied Latin
- > They failed two or more years of Latin at Pierce Middle School
- ➤ They did not study a World Language at Pierce Middle School

Students who have some academic background in Latin will take a placement test and be placed accordingly.

Latin students are encouraged to prepare for the Latin SAT and the Advanced Placement Latin language exam. All students in Advanced Placement course are required to take the test.

Course Descriptions - Spanish

SPANISH I Honors 251 College Prep 250

5 credits

This course is an introduction to the language and culture of Spanish-speaking countries. All language skills - listening, speaking, reading, and writing - will be developed throughout the year. Students will be exposed to a wide range of multi-media materials and authentic materials.

SPANISH II Honors 252 College Prep 253

5 credits

This course will continue to develop the skills of listening, speaking, reading, and writing and will continue to study the cultures of the Spanish-speaking world. More emphasis is placed on everyday conversation and on readings of high interest and contemporary themes. Students will continue to be exposed to a wide range of multi-media materials and authentic materials.

SPANISH III Honors 262 College Prep 263

5 credits

In this class, taught in the target language, students will refine and enhance their linguistic and communicative skills. They will learn to formulate and express critical opinions and judgments with greater fluency and improved accuracy. Systematic grammatical practice and review in meaningful and engaging contexts will help students solidify their oral and written proficiency. Thematic vocabulary is used to implement task-oriented activities. Reading selections include a wide range of multi-media materials and authentic materials

SPANISH IV Honors 272 College Prep 273

5 credits

In this class, students will continue to refine and enhance their linguistic and communicative skills and their knowledge of the Spanish-speaking world. Conversational skills are encouraged through task-oriented activities, skits and role-playing. Reading skills are further developed with selections from literature, the press, multi-media resources and various authentic documents.

SPANISH V Honors 282

5 credits

The main focus of this course is to develop the students' communicative competence. Students will refine and enhance their linguistic and communicative skills and their knowledge of the Spanish-speaking world through a wide range of task-oriented activities. Grammatical practice and review in meaningful and engaging contexts will help students solidify their oral and written proficiency. Students ready to take the SAT Subject test may do so during the course of the year. The honors course prepares students to take the AP Language exam for following year.

AP SPANISH LANGUAGE 281

5 credits

The goal of this course is to prepare students for the Spanish AP exam given in May. The program follows the guidelines imposed by The College Board for a 3rd year college course. In addition the course follows the nationally mandated standards for World Language Learning in the 21st century, engaging students in an exploration of cultures, communications, connections, communities and comparisons. A holistic approach is used to enable students to perform authentic tasks in the 3 modes of communication: interpersonal, interpretive and presentational. Literature, magazine and newspaper articles, podcasts, songs, movies will be integrated around the study of six themes: Global Challenges, Science & Technology, Contemporary Life, Beauty & Aesthetics, Families and Communities, Personal and Public Identities. All students enrolled in AP classes are required to take the AP exam in May. Students receiving honors credit may be required to take a final exam. Please note: there is a required summer assignment for this course.

SPANISH VI Honors 275 College Prep 276

5 credits

The last course of our Spanish Program is specifically designed to prepare advanced students to communicate in Spanish in real life contexts. Intensive practice of oral and written communication will enable students to demonstrate a high level of proficiency in essential areas and everyday situations. Thematic readings taken from current literature, newspapers, multi-media resources and other authentic documents will provide further development of communicative skills in meaningful contexts.

Course Descriptions - French

FRENCH I Honors 209 College Prep 210

5 credits

This course is an introduction to the language and culture of French-speaking countries. All language skills - listening, speaking, reading, and writing - will be developed throughout the year. Students will be exposed to a wide range of multi-media materials and authentic materials.

FRENCH II Honors 212 College Prep 213

5 credits

This course is a continuation of the development of listening, speaking, reading, and writing skills. More emphasis is placed on everyday conversations, vocabulary building and readings of high interest and contemporary themes. Students will continue to be exposed to a wide range of multi-media materials and authentic materials.

FRENCH III Honors 222 College Prep 223

5 credits

In this class, students will refine and enhance their linguistic and communicative skills. They will learn to formulate and express critical opinions and judgments with greater fluency and improved accuracy. Systematic grammatical practice and review in meaningful and engaging contexts will help students solidify their oral and written proficiency. Thematic vocabulary is used to implement task-oriented activities. Reading selections include a wide range of multi-media materials and authentic materials.

FRENCH IV Honors 232 College Prep 233

5 credits

In this class, students will continue to refine and enhance their linguistic and communicative skills and their knowledge of the French-speaking world. Conversational skills are encouraged through task-oriented activities, skits and role-playing. Reading skills are further developed with selections from literature, the press, multi-media resources and various authentic documents. Students ready to take the SAT Subject test may do so during the course of the year. Qualified students will be encouraged to switch to the AP Language class (course 237).

FRENCH V Honors 242 College Prep 243

5 credits

The main focus of this course is to develop the students' communicative competence. Students will refine and enhance their linguistic and communicative skills and their knowledge of the French-speaking world through task-oriented activities. Grammatical practice and review in meaningful and engaging contexts will help students solidify their oral and written proficiency. Students ready to take the SAT Subject test may do so during the course of the year. Qualified students will be encouraged to switch to the AP Language class (course 237).

FRENCH VI Honors 244 College Prep 245

5 credits

The last course of our French Program is designed to prepare students to communicate in French in real-life contexts. Intensive practice of oral and written communication will enable students to demonstrate an advanced level of proficiency in essential areas and everyday situations. Thematic readings taken from current literature, newspapers, multi-media resources and other authentic documents will provide further development of communicative skills in meaningful contexts. Students ready to take the SAT Subject test may do so during the course of the year.

The following courses are designed for students who have successfully completed all courses in the French Immersion Program from grades 1-8 and all other qualified students.

FRENCH IMMERSION IV (Open to all qualified students)

Honors 200 College Prep 201

5 credits

This course is designed to refine the linguistic and communicative skills acquired by students in elementary and middle schools. The emphasis is on fluency and accuracy in practical and everyday life contexts. Reading and listening comprehension skills are practiced in response to newspaper articles, radio and television interviews. Writing skills are developed through authentic tasks such as the redaction of emails, personal correspondence and business letters. Students are engaged daily in conversations, discussions and debates on current events and various cross-cultural topics. Students wishing to prepare for the SAT subject French exam or the AP course are encouraged to choose the Honors level.

FRENCH IMMERSION V (Open to all qualified students)

Honors 202 College Prep 203

5 credits

In this class, students will continue to refine and enhance their linguistic and communicative skills. They will learn to formulate and express critical opinions and judgments with greater fluency and improved accuracy. Systematic grammatical practice and review in meaningful and engaging contexts will help students solidify their oral and written proficiency. Students ready to take the SAT Subject test may do so during the course of the year.

French V students have two options:

1) Take French Connections VI class (open to all qualified students) to prepare for the November SAT French Exam and develop proficiency in intensive conversational French. 2) Take the AP French class (open to all qualified students) to prepare for the May exam.

FRENCH CONNECTIONS VI (Open to all qualified students)

Honors 225 College Prep 224

5 credits

The course will continue to develop students' oral and written proficiency through multi-media resources and a wide range of texts and authentic documents. Communication of original ideas, dynamic discussions of current events and realistic problem solving will be emphasized. Students will be encouraged to take the French SAT test which gauges understanding of both written and spoken French in authentic and practical contexts. At the end_of the course, students have the option to take either AP French or French Connections VII.

AP FRENCH (Open to all qualified students) 237

5 credits

The goal of this course is to prepare students for the French AP exam given in May. The program follows the guidelines imposed by The College Board for a 3rd year college course. In addition the course follows the nationally mandated standards for World Language Learning in the 21st century, engaging students in an exploration of cultures, communications, connections, communities and comparisons. A holistic approach is used to enable students to perform authentic tasks in the 3 modes of communication: interpersonal, interpretive and presentational. Literature, magazine and newspaper articles, podcasts, songs, movies will be integrated around the study of six themes: Global Challenges, Science & Technology, Contemporary Life, Beauty & Aesthetics, Families and Communities, Personal and Public Identities. All students enrolled in AP classes are required to take the AP exam in May. Students receiving honors credit may be required to take a final exam. Please note: there is a required summer assignment for this course.

FRENCH CONNECTIONS VII (Open to all qualified students)

Honors 226 College Prep 227

5 credits

The last course of our French Program is specifically designed to prepare advanced students to communicate in French in real life contexts. Intensive practice of oral and written communication will enable students to demonstrate a high level of proficiency in essential areas such as: practical living skills, lifestyle choices, day-to-day problem solving and conflict resolution, as well as financial, professional, legal and social issues. Students wishing to claim an internationally recognized certificate will prepare for the *Diploma of Studies of the French Language (DELF)*.

Course Descriptions - Latin

LATIN I Honors 287 College Prep 290

5 credits

This course is an introduction to the Latin language with an emphasis on vocabulary, grammar, reading and sentence formation. Comparisons with English are made frequently, especially the etymological roots of words. There is also a concentration on Roman and Greek culture and mythology.

LATIN II Honors 292 College Prep 293

5 credits

This course continues the basics taught in Latin I and begins to emphasize more complex vocabulary, grammar, reading, and syntax. The students will focus on readings from the Oxford Latin Course. Etymology is also an essential part of this course.

LATIN III Honors 297 College Prep 298

5 credits

This course completes the study of Latin grammar and vocabulary; students will translate more difficult selected passages from the Oxford Latin Course with a focus on Horace. Emphasis is placed again on etymology, mythology, and history.

LATIN IV Honors 299 College Prep 296

5 credits

The focus of this course is on the understanding and the appreciation of the Latin language as a powerful vehicle for communication and artistry that is as relevant today as it was through the ages. Concentration will be on selected authors including Ovid, Catullus, and Caesar. Students will learn to compare and contrast the poets' craft: mode of expression, figure of speech, meter, imagery, structure, and theme. Students ready to take the SAT Subject test may do so during the course of the year.

LATIN V Honors 303 College Prep 300

5 credits

The aim of this course is not only to build fluency in reading Latin but also to cultivate a literary appreciation as well. All elements of poetry and/or prose are introduced. A major emphasis is placed on perfecting the student's ability to translate and critically analyze selected literature from the Latin authors including but not limited to Ovid, Catullus, Caesar, Cicero, and Vergil. Etymology is again part of this course. Students ready to take the SAT Subject test may do so during the course of the year.

AP LATIN Vergil/Julius Caesar 304

5credits

The curriculum of this course prepares the student to take the AP Exam in Vergil and Julius Caesar. The students will read, translate, analyze, interpret, scan, and recite Latin from the Aeneid as well as De Bello Gallico. Critical thinking and essay skills are emphasized. All students enrolled in AP classes are required to take the AP exam in May. Please note: there is a required summer assignment for this course.

LATIN VI Honors 306

5 credits

This course is for students who have successfully completed a survey of Roman writers such as Vergil, Catullus, and Ovid. Cicero's De Amicitia, Pro Archia, and Scipio's Dream will be translated in first semester. Other topics include Roman oratory, ancient philosophy, and political rhetoric. The second semester will include a survey of various themes in the ancient world written by authors such as Cicero, Ovid, Martial, and Catullus. Independent study plays a role at this level. Students ready to take the SAT Subject test may do so during the course of the year.

III.

SPECIAL PROGRAMS

ADDITIONAL PROGRAMS

COMMUNITY SERVICE LEARNING PROGRAM

The Community Service Learning Program at Milton High School was implemented during the 1996-97 school year in order to develop and instill in all students a sense of citizenship, community, and the responsibilities that good citizens demonstrate by giving back to the community. Each student at Milton High School will be required to fulfill 35 hours of active service to the community each year in order to graduate. Students who transfer new into the school will be responsible for the requirement on a pro-rated semester basis.

The staff and administration believe that community service provides a valuable self-directed learning experience with intellectual, social, and emotional benefits. The synergism of service and learning provides opportunities for students to work with people of diverse backgrounds, to develop interpersonal and leadership skills, to develop self-esteem and social responsibility, to explore career possibilities, and to learn the principles of citizenship. Community Service Learning enhances academic skills, and students are able to understand the relevance of what is being taught in the classroom. Students earn a sense of empowerment by engaging in community service where they are needed, valued, respected, and make real contributions.

A Community Service placement must be an active experience that benefits the Milton High School community, the community at large, or the global community. The service may not directly benefit the student's family (e.g. babysitting), and students may not accept any money or a stipend for the service performed. If a student has a question about a proposed activity, he/she should consult their guidance counselor. The MHS principal has the final say if there is a dispute over acceptability.

Hundreds of in-kind service hours will be given back to Milton and surrounding communities through the Community Service Learning Program. The Community Service Learning Program reflects the core values of the Milton Public School System and is in keeping with the strategic plan for Milton High School.

Examples of service may include, but are not limited to, the following:

- 1. Tutoring peers or younger students in after-school programs
- 2. Service through religious affiliations
- 3. Service activities sponsored by MHS clubs
- 4. Park clean-ups, Park & Recreation Department activities
- 5. Service to physically or mentally challenged, ill or homeless
- 6. Assisting the elderly
- 7. Volunteering in the Arts: community theater, museums, music
- 8. Working with animals or nature
- 9. Advocacy or political campaigning
- 10. Service with social service agencies: VNA, Head Start, Fr. Bill's Place, Rosie's, GBFB, etc.
- 11. Fund raising for charity: walkathons, road races, group fundraising
- 12. Athletic coaching, Special Olympics, sports clinics

ROTARY CLUB INTERNATIONAL EXCHANGE PROGRAM

If you are between the ages of 15 and 19, in the top third of your graduating class, and want to be a world traveler, the Rotary Club of Milton could give you a ticket for a great experience you will remember your whole life.

The Rotary offers two student exchange opportunities – a long term and a short term. The student selected for the long term exchange will attend secondary school overseas for one year with room, board, and schooling provided by the host Rotary Club. The Milton student selected for the short-term exchange will go overseas for approximately three to six weeks during the summer and will stay with a Rotary family who also has a teenaged student. At the end of the visit, the foreign teenager will spend about three weeks with the Milton student's family.

Seven thousand students from more than 80 countries take part in Rotary Youth Exchanges annually. The Rotary Club, a worldwide organization of business and community leaders dedicated to "service above self", is uniquely positioned to offer this program.

Milton has hosted students from Chile, Ukraine, France, Thailand and Brazil over the past five years. Having foreign students in Milton makes a richer educational experience for all students, and teaches them about the world as no other way can. Additional information about the Rotary Exchange Program and applications are available in the Guidance Office.

SPECIAL PROGRAMS

SCHOOL ADJUSTMENT COUNSELORS

School adjustment counselors provide counseling services to assist students in removing obstacles to the learning process.

More specifically, students struggling with death, loss, separation from family, abuse, substance abuse, eating disorders, anger management, peer and/or adult relations, conflict resolution are identified for counseling services.

Guidance counselors, administrators, school nurses, parents and teachers can refer students for adjustment counseling services. Adjustment counselors are available for consultation with faculty around social-emotional issues that might arise within the classroom setting. They are utilized for linking students and families to outside agencies and community resources. In addition, adjustment counselors communicate with parents or guardians as an integral part of the home-school partnership.

SPECIAL EDUCATION PROGRAMS

The Special Education Department provides a continuum of supportive services to students with identified special needs. Upon completion of an evaluation to determine eligibility for special education services, a student may be recommended for one or more of the following: academic support for study skills, organization and/or writing skills, reading skills, reading comprehension, programs in English, history or science, vocational and life skills.

SPECIAL OFFERINGS

SENIOR PROJECT Honors 043

2.5 credits

This semester program is for seniors who want to work independently to develop an original project. Students who apply for this program must be seniors in good standing, who are creative, possess critical thinking skills, and are able to manage time and tasks efficiently. The Senior Project can be a research paper, a project, a study, a creation in art or music, a construction, a video, or other creative work. During the Senior Project period, the student will report to the library. Exceptions will only be approved by a Vice Principal.

The Senior Project must be:

- academically linked to one of the school's departments: English, mathematics, world languages, music, business, science, art, etc.
- a college-level project
- a rigorous learning experience that is challenging and will significantly add to the student's knowledge and/or skills
- approved, guided, supported, and graded by a faculty advisor

Seniors must submit a proposal for their project that will be reviewed by a group of faculty members, a department head and an administrator. Participants will be selected from those who submit a quality proposal that explains the type of Senior Project being considered. The culmination of the project is a presentation to a <u>panel of faculty members</u>. All the information needed for the application to this program is available in the guidance office.

TEACHING ASSISTANT Unleveled 004

2.5 credits

A few departments may accept a very small number of applicants as Teaching Assistants (TA) for one semester. This course is open to juniors during the second semester and seniors during the first semester. No student may take this course more than once during their MHS years.

Students must complete an application for TA for a specific course with a specific teacher. Next, they must meet with the teacher and get the teacher's signature of approval. Students must then submit the application to the department chair/director and get their signature of approval. Guidance will attempt to schedule this request with the specific course and specific teacher who approved the application. A TA for Freshman Seminar needs approval from a department chair/director rather than a specific teacher.

The TA must be a role model for students in the course – always on time and prepared. The TA must be actively involved in classroom activities every day and will be formally assessed bi-weekly. The TA may be involved in checking homework/class work that is not graded and may tutor or coach students in the class. An individual serving as a TA in a classroom cannot (a) be doing his/her homework for other classes, (b) make photocopies, (c) see other students' grades or be involved in grading, (d) see/hear confidential information about students in the class or, (e) be left in the room alone with other students should the teacher not be in the room.

FRESHMAN SEMINAR Unleveled 973

2.5 credits

Freshman Seminar prepares and empowers students to succeed academically, personally and socially as they transition into Milton High School's rigorous and enriching educational program. The goals for Freshman Seminar are as follows: students will communicate effectively with students and faculty and advocate for themselves, become familiar with the resources available to them, prioritize and organize their work, set goals, learn and apply appropriate study strategies for their courses and know the academic and social learning of Milton High School. Students will be assigned to this one semester course but may opt out.