



# Milan High School Course Description Guide

# 2019-2020

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The district shall not discriminate on the basis of race, color, religion, national origin, ancestry, sex, marital status or handicap in its educational programs or activities.

Inquiries regarding this policy should be directed to:

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## Graduation Requirements

### Total Credits = 24

<b>English</b>	4 Credits (or 5)*
Honors English 9 or English 9 —1 Credit Honors English 10 or English 10* — 1 Credit; (*2 Credits if English double-block 10 is taken) English 11, AP English Language—1 Credit English 12 or 2 English Electives—1 Credit	
<b>Math</b>	4 Credits*
Algebra I, Geometry, Advanced Algebra & an Elective	
* NOTE: One math related course must be taken during Senior Year Course options may be found on following page	
<b>Science</b>	4 Credits
Biology or Honors Biology —1 Credit Chemistry, Honors Chemistry, Honors Physics, or AP Chemistry—1 Credit Elective—2 Credits (Physics or Honors Physics recommended)	
<b>Social Studies</b>	4 Credits
World History & Geography -1 Credit U.S. History & Geography or AP U.S. History - 1 Credit Civics & Economics or A.P. Government (1 Credit) Government, AP Government or Social Studies Elective -1 Credit	
<b>Physical Education &amp; Health</b>	.5 Credit
<b>Health</b>	.5 Credit
<b>Visual, Performing, and Applied Arts*</b>	1 Credit
* NOTE: Course options may be found on following page	
<b>Foreign Language</b>	2 Credits
*Note: Some or all may be earned in Middle School	
<b>Elective Credits</b>	4 Credits

**Michigan Merit Exam MME/(SAT)** - Participation required for graduation: All students must participate in the state required Michigan Merit Exam. The Michigan Merit Exam is a three-part assessment including the SAT, WorkKeys, and the M-STEP. Students are required to take all three assessments during their junior year to be eligible for graduation.

### **\*COURSES THAT QUALIFY FOR MATH-RELATED CREDIT**

The following courses may qualify for math related credit in the student's senior year:

- Any Traditional High School Math Course that has not already earned credit (i.e., Pre-Calc/AP Calc)
- Physics, Honors Physics, or A.P. Physics\*
- Honors Chemistry or A.P. Chemistry\*
- Accounting
- General Business
- General Business – School Store
- CAD I or II
- Architecture I or II
- Intro to Engineering / Principles of Engineering
- Graphic Photography

\*Denotes these courses can only count for math-related credit **IF** they are not used as Science credit for the Michigan Merit Curriculum (MMC).

### **COURSES THAT QUALIFY FOR VISUAL, PERFORMING, AND APPLIED ARTS (VPAA) CREDIT**

The following courses may qualify for VPAA credit at any point during high school:

- Drama & Advanced Drama
- Architecture I/II \*
- Graphic Design/Advanced \*
- CAD I/CAD II \*
- Internet & Design \*
- Band/Choir
- Art I/Art II and beyond
- Pottery I/II and beyond
- Photography
- Yearbook\*

For more information visit:

[http://www.michigan.gov/documents/mde/Complete\\_MMC\\_FAQ\\_August\\_2014\\_467323\\_7.pdf](http://www.michigan.gov/documents/mde/Complete_MMC_FAQ_August_2014_467323_7.pdf)

## High School Four-Year Plan

Goals are essential to planning your career. They serve like a road map, giving you a destination and a route. There is no better time to plan for your future than now. To help you along the way, complete the four-year high school plan below. List courses you have taken so that you can view your progress. This four year plan can assist you in updating your web based EDP in the future. Listed below is a suggested course plan that a majority of students follow, however individualized variations should be expected, particularly for a faster or slower pace.

<b>9<sup>th</sup> Grade</b>	
<b>Classes to Take:</b>	<b>Opportunities to Take Advantage Of:</b>
ENGLISH: English 9 or Honors English 9	<input type="checkbox"/> Individual Consultation With School Counselor <input type="checkbox"/> Update Web Based EDP
SOCIAL STUDIES: World History & Geography	<input type="checkbox"/> Career Exploration
MATHEMATICS: Algebra and/or Geometry	<input type="checkbox"/> Job Shadow
SCIENCE: Biology or Honors Biology	<input type="checkbox"/> Community Service
ELECTIVES: Physical Education And Health	*Assessment Days – PSAT 9 (Fall and Spring)

<b>10<sup>th</sup> Grade</b>	
<b>Classes to Take:</b>	<b>Opportunities to Take Advantage Of:</b>
ENGLISH: English 10 or Honors English 10	<input type="checkbox"/> Individual consultation with School Counselor <input type="checkbox"/> Update Web Based EDP
SOCIAL STUDIES: U. S. History & Geography or A.P. U.S. History	<input type="checkbox"/> Career Exploration / Explore SWWC (Open House)
MATHEMATICS: Geometry and/or Advanced Algebra	<input type="checkbox"/> Job Shadow/Community Service
SCIENCE: Chemistry or Honors Chemistry	<input type="checkbox"/> Prepare for Dual Enrollment
ELECTIVES: Assorted	*Assessment Days – PSAT 10/NMSQT

<b>11<sup>th</sup> Grade</b>	
<b>Classes to Take:</b>	<b>Opportunities to Take Advantage Of:</b>
ENGLISH: English 11 or A.P. Language & Composition Integrated English	<input type="checkbox"/> Individual Consultation with School Counselor <input type="checkbox"/> Update Web Based EDP
SOCIAL STUDIES: Civics/Economics or A.P. Government	<input type="checkbox"/> Job Shadow/Community Service <input type="checkbox"/> Career Exploration
MATHEMATICS: Advanced Algebra or Pre-Calculus Integrated Math	<input type="checkbox"/> College Search/Visits
SCIENCE: Physics or Honors Physics A.P. Chemistry and/or A.P. Biology	<input type="checkbox"/> Dual Enrollment and/or online courses
ELECTIVES: Assorted	*Assessment Days – PSAT 10/NMSQT and SAT

<b>12<sup>th</sup> Grade</b>	
The Core Academic Program for 12 <sup>th</sup> Grade is in the Milan Center for Innovative Studies (MCIS). All students will take Government and then choose two additional core classes of the three offered.	
<b>Classes to Take:</b>	<b>Opportunities to Take Advantage Of:</b>
ENGLISH: English 12 or Honors English 12 (MCIS) A.P. Literature & Composition	<input type="checkbox"/> Individual Consultation with School Counselor <input type="checkbox"/> Update Web Based EDP
SOCIAL STUDIES: Government or Honors Government (MCIS) A.P. Government	<input type="checkbox"/> Senior Audit
MATHEMATICS: Integrated Math 2 (MCIS) A.P. Calculus and/or A.P. Statistics	<input type="checkbox"/> Attend Financial Aid Night / Apply for Scholarships <input type="checkbox"/> Career Exploration, Senior Project & Internship
SCIENCE: Integrated Science 2 (MCIS) Applied Physics or Honors Applied Physics (MCIS) A.P. Chemistry and/or A.P. Biology and/or A.P. Physics	<input type="checkbox"/> Complete FAFSA Financial Aid Application <input type="checkbox"/> Conduct College Visits
ELECTIVES: Assorted	<input type="checkbox"/> Dual Enrollment and/or online courses <input type="checkbox"/> Take ACT and/or retake SAT

## Time-Table for the College Admission Process

### Fall of Sophomore Year:

- ✓ Update your EDP
- ✓ Take the PSAT10/NMSQT Test for practice and academic/career planning.

### Fall of Junior Year:

- ✓ Update your EDP
- ✓ Take the PSAT10/NMSQT for practice and to qualify for the National Merit Scholarship
- ✓ Attend MHS college visits

### Winter of Junior Year:

- ✓ Learn about colleges that are of interest to you
- ✓ Take the MME (SAT, WorkKeys, MSTEP)

### Summer after Junior Year

- ✓ Visit college campuses
- ✓ Request materials from colleges to learn more about them and their offerings

### Fall of Senior Year

- ✓ Update your EDP
- ✓ Attend MHS college fair
- ✓ Narrow choices of colleges to a few and apply to these schools. For Early Decision/Action Applications submit by October 31<sup>st</sup>
- ✓ Continue to take and succeed in challenging college preparatory coursework
- ✓ Attend MHS Financial Aid/Scholarship Night
- ✓ Submit FAFSA (Free Application for Federal Student Aid) Form prior to November

### Winter of Senior Year

- ✓ Apply for Local Scholarships

## Factors to Consider When Choosing a College

1. Type of college (public, private, etc.)
2. Size of college and community
3. Location
4. Programs offered
5. Admissions policy
6. Cost
7. Environment/Atmosphere/Activities

## Academic Requirements for College-Bound Students

Recommended by the Presidents' Council-State Universities of Michigan:

- English (4 years required; at least 1 year of Advanced Placement recommended)
- Mathematics (4 years required – one must be in senior year, 1 year of Advanced Placement recommended))
- Biological/Physical Sciences (3 years required including 1 year of biological science and 1 year of physical science; 1 year Advanced Placement laboratory course is also strongly recommended.)
- History/Social Sciences (3 years required; 1 year of Advanced Placement strongly recommended)
- Foreign Language (3 years strongly recommended)
- Fine and Performing Arts (2 years strongly recommended)

### Some Advice from college students...

In a national survey, college students were asked what advice they would give students in high school for college. Their answers were:

1. Develop good study habits in high school and learn to take good notes.
2. Take college preparatory courses such as English, math, science, social studies, and foreign language in high school.
3. Learn about your interests and skills. Plan for your future career and take appropriate high school classes.
4. Learn to budget and manage time, balancing study time with social time. Learn to save and budget money. Be involved in extracurricular activities.
5. Learn about colleges by visiting college campuses and talking with students who attend those institutions.
6. Develop good writing, reading skills and grammar skills. Get good grades.



## High School Planning Guide for the College-Bound Athlete

### NCAA Athletic Eligibility Requirements for 2016

*A college freshman, in order to be eligible for practice, participation in regular-season competition, and athletically-related financial aid, entering an NCAA Division I & II institution directly out of high school must have:*

*Graduated from high school with the required minimum grade-point in the core-curriculum; and achieved a minimum sum score on ACT or SAT (Check NCAA GPA/Test Score Index); and*

*Successfully completed a core curriculum of the following:*

Division I: 16 Core Courses (2008 and Beyond)	Division II: 16 Core Courses
4 years of English	3 years of English
3 years of math (algebra 1 or higher level)	2 years of math (algebra 1 or higher level)
2 years of natural or physical science (including one year of lab science if offered)	2 years of natural or physical science (including one year of lab science if offered)
1 extra year of English, math, or science	2 years of social science
2 years of social science	3 extra years of English, math, or science
4 years of additional core courses (from any category above, or in a foreign language, non doctrinal religion, or philosophy)	4 years of additional core courses (from any category above, or in a foreign language, non doctrinal religion, or philosophy)

*NOTE: It is the student-athlete's responsibility to get details on the GPA, test score sliding scale, and core curriculum courses. Athletic directors and counselors have that information or visit:*

<https://web3.ncaa.org/hportal/exec/links?linksSubmit=ShowActiveLinks>

*If you intend to participate in college sports, visit the NCAA Clearinghouse website to review specific academic requirements at [www.eligibilitycenter.org](http://www.eligibilitycenter.org) or pick up NCAA forms from the Athletic Office.*

### Student Athletics at Milan High School

*Students interested in athletics at MHS should refer to the Athletic Code Booklet. This booklet may be obtained in the Athletic Director's or the Athletic Secretary's offices. The booklet is full of useful and important information.*

*You'll learn about Milan High School's expectations of athletes—practice attendance policy, playing time procedures, and athletic eligibility, etc. are included.*

## Guide for Class/Grade Promotion

- Freshman promoted to Sophomore.....minimum 6 credits earned
- Sophomore promoted to Junior.....minimum 12 credits earned
- Junior promoted to Senior.....minimum 18 credits earned

## Academic Honors

**Honor Roll** – Students who earn a “B+” (3.5) average or above each marking period are listed on the Honor Roll. No D’s or F’s. (Honor Roll is based on marking period GPA, not semester GPA and can be achieved four times each year.)

**Summa Cum Laude**—Graduating seniors who achieve a 3.9 cumulative GPA or higher at the end of the 7<sup>th</sup> semester, successful completion of 4 or more Advanced Placement Courses, and National College Readiness on the SAT/ACT or a composite score of 1160 on the SAT or 24 on the ACT will earn Summa Cum Laude honors signified by a red honor sash and medallion. The student earning the highest GPA will be recognized as Valedictorian.

**Magna Cum Laude** – Graduating seniors who achieve a 3.9 cumulative GPA or higher at the end of the 7<sup>th</sup> semester, and completion of two (2) or more AP courses will graduate with Magna Cum Laude signified by a medallion. Magna Cum Laude is based on a cumulative GPA for seven semesters.

**Cum Laude** – Graduating seniors, who achieve a 3.75 to 3.89 cumulative GPA at the end of the 7<sup>th</sup> semester, graduate with High Honors (Cum Laude) signified by a gold cord.

**Honor**—Graduating seniors, who achieve a 3.5 to 3.74 cumulative GPA at the end of the 7<sup>th</sup> semester, graduate with Honors signified by a silver cord.

**Avant-garde** – Forward thinking, graduating seniors who have earned 4 or more college classes, either through dual enrollment, consortium or an online experience.

## Schedule Changes

Schedule changes for academic misplacement will be allowed through the first Friday of each semester as long as: 1) they are educationally sound and have both parent and counselor authorization; and 2) the

student turned in their enrollment sheet signed by a parent or guardian. To initiate a schedule change students must schedule an appointment in guidance.

Any schedule changes after the first Friday of each semester must be approved by the administration. A letter of explanation must be submitted to the Principal. The following criteria must be met before consideration will be given:

- Classroom teacher approval
- Counselor approval
- The change is educationally sound and in the best interest of the student
- There is a class available

All classes dropped after the first Friday of each semester will be recorded on the student's transcript as an ' F ' unless procedures have been followed.

## Schedule Options

### **Dual Enrollment**

To participate in the Dual Enrollment program, interested students must meet with a high school counselor, either one-on-one or in the group meeting, prior to applying to the college/university to determine eligibility, identify approved courses, and tuition status.

Eligible students for dual enrollment reimbursement must have met the following requirements:

Students must have taken Merit Tests and earn the qualifying score in the subject area of study if testing is done in that subject area. Students should check with a counselor to determine if tuition will be reimbursed before registering. If eligible, the counselor will provide you the appropriate forms to complete and a form letter to take to the college for registering.

Students may enroll in mathematics, science, communication skills, fine arts or other academic areas not offered by the high school or not available to the student due to a scheduling conflict, or a course related to specific career goal. A course cannot be in area of hobby, craft, recreation, physical education or theology, divinity, or religion.

Students must complete the college class(es) with a grade of C or higher. If the high school is counting the dual enrolled classes as part of the student's full-time attendance, an official copy of earned grade(s) must be submitted to the counselor within two (2) weeks of the end of the term so the grades can be included on your transcript. NOTE: May be subject to change due to modifications made in the process at the state level.

### **Online Course Options**

Online courses may be available to high school students through Michigan Virtual High School or GenNet. These two providers offer a wide variety of online courses, which enable our students to

expand and enrich their high school experience. These classes will be issued credits aligning with Milan High School graduation policy (1 semester class = .5 credit). Students wishing to enroll in online/virtual courses will abide by the same course selection and deadlines as all other courses.

MAS follows all applicable rules as put in place by the State School Aid Act- Section 388.1621f.

A Milan High School staff member will serve as a local mentor for all students who are part of an online class. The mentor's role will be to frequently check in with the student and maintain student enrollment records. The instructor of the online class will issue a grade for the class. Milan High School will include this class work on the Milan High School transcript. If there are any controversies with regard to credit earned, the decision of the Principal is final.

### **Credit Recovery**

There may be an online option available for students who are wishing to recover credit that they did not obtain due to failing a class. This option is called E2020. It is for students who obtain at least a 50% as a final grade in a class and meet basic attendance and behavioral benchmarks as these courses are offered during the standard school day.

The first option for E2020 is for a student who wishes to recover a credit during our fall or winter semester. They would have two weeks to work on units of the class that they did not master. Once they have mastered these sections they would be given a "CR" (credit) for a class in that subject area, which will not replace the grade in the original course.

The second E2020 option is for a student who wishes to recover their grade over the summer break. This is a course where the student is required to come to school and work on the computer for 3 hours a day. They would attend the class for 10-15 days. This option would have the benefit of having a teacher on site to help with any difficulties that a student may encounter. Summer E2020 class would cost a student \$150. After completing this course they would receive a "CR" for a class in that subject area, which will not replace the grade in the original course.

All requests for online recovery classes are not granted. Each case is reviewed by either a member of the counseling or administrative team. At that time the counselor or administrator determines if there is a strong possibility of success for the student with the online option.

Online Learning (<http://micourses.org/>)

Recovery for online courses and dual enrollment will be handled on an individual basis following the above guidelines pertaining to receiving credit for recovered courses.

### **Grade Recovery**

Grade recovery will be the process by which students may be allowed an extended amount of time to earn a passing grade. First, to be eligible for grade recovery, students must have earned a failing grade with at least a 60%. Eligible students will be responsible for meeting with teachers to begin the grade

recovery process. Students must be provided a Grade Recovery Guide and a copy must be retained for teacher records. Following the first semester, students will be allowed three weeks to complete the process. Following the second semester, students may be granted one week, at the teacher's discretion, to complete the process.

### **Consortium**

The South & West Washtenaw Consortium delivers career and technical education (CTE) to Chelsea, Dexter, Lincoln, Manchester, Milan and Saline school district students. All CTE courses are designed to equip students with entry-level skills needed to gain employment, and also prepare them for Post-Secondary training and education. Many courses offer certifications necessary to enter the job market, in addition to Advanced Placement college credit, which articulate to local community colleges. For more information visit: <http://www.salineschools.org/schools/swwc/>

### **Testing Out of High School Classes**

A student who desires to fulfill requirements for a high school course without enrolling in the course may do so by attaining a grade of not less than a C+ on the comprehensive assessment for the course. This can include a paper, portfolio, presentation, project, or assessment in the course. Successfully attained competency will earn a grade of "CR" (credit) and shall not be used in computations of grade point average nor counted toward the total credits required for graduation. Testing out competency may be used to fulfill recommendations for other courses and/or subject area credit requirements for graduation. Students testing out of academic core courses (English, Math, Science, and Social Studies) are expected to take the required number of credits in that area to fulfill graduation requirements. Students will be given only one opportunity test-out of any semester curricula offering during their high school experience. Students may not test out of a class they have been/or are currently enrolled in.

Milan High School will administer testing out finals twice a year—August being the primary time and December/January being a special case time. Seniors wishing to test out of required classes for graduation must do so no later than the December/January testing window of their senior year.

#### **August "Testing Out"**

- Students must make a request to the counselor to test out by May 15<sup>th</sup>
- Departments must have "test-out" exams/portfolio requirements prepared by May 15<sup>th</sup>
- Administration of test/submission of portfolio pieces to be coordinated based on requirements
- Evaluation of materials will be prior to registration in August
- In-coming students to MHS (including 8<sup>th</sup> grade) can waive the May 15<sup>th</sup> request date

#### **December/January "Testing Out"**

- Students must make a request to the counselor to test out by December 15<sup>th</sup>
- Departments must have "test out" exams/portfolio requirements prepared by December 15<sup>th</sup>

- Administration of test/submission of portfolio pieces to be coordinated based on requirements and prior to the start of 2<sup>nd</sup> semester
- Evaluation of materials will be by the end of the 1<sup>st</sup> week of 2<sup>nd</sup> semester

Note: dates reflected above will be reviewed annually.

### **Advanced Program Opportunities**

**Advanced Placement (AP) Program-** The College Board’s Advanced Placement (AP) Program gives high school students an opportunity to pursue college level studies while still in high school. Some colleges award college credit and/or advanced standing if the student achieves a particular score on the AP exam. As each post-secondary institution allocates credit via their own policies, we always suggest checking the specific institution for credit opportunities. AP courses run for two full semesters unless otherwise specified below. The AP Capstone diploma can now be pursued by students who qualify. See page 16 for additional information on the program.

**AP Courses Offered-** AP Calculus AB, AP Statistics, AP Biology, AP U.S. Government & Politics, AP Chemistry, AP U.S. History, AP English Language & Composition, AP Physics, AP English Literature & Composition, AP Seminar, AP Research

**Summer Assignments-** Please be aware that our AP courses require completion of a summer packet or summer reading/ writing assignments that will be due upon return in the fall. Please check the counseling website for these assignments, or contact the teacher directly. These assignments are posted online in early June. The workload for these courses is equivalent to college courses. Students can expect up to 10 hours of homework per week, for each AP class they take. For example, one class would require 10 hours per week, while 3 classes would require 30 hours per week for homework.

### **Career Pathways**

**A Note from the Guidance Counselors-** Your future educational training or future vocation depends, by and large, upon the choices you make while in high school. Therefore, planning a personal course of study in high school is an extremely important responsibility, which confronts the student and his/her parents each year. Guidance Counselors are available at Milan High School to assist you in making your decisions.

Career Pathways are broad groupings of careers that share similar characteristics whose employment requirements call for many common interests, strengths, and competencies. Courses offered at MHS have been aligned with the six Career Pathways.

**Arts and Communication** Careers related to the humanities and to the performing, visual, literary, and media arts. These may include creative or technical writing, illustrating, graphic design, publishing, theatre arts, journalism, languages, radio and television broadcasting, photography, advertising, and public relations.

**Business, Management, Marketing, and Technology** Careers related to all aspects of business including accounting, business administration, finance, information processing, and marketing. These may include entrepreneurship, sales, marketing, hospitality and tourism, computer/information systems, office administration, personnel, economics, and management.

**Health Services** Careers related to the promotion of health as well as the treatment of injuries, conditions, and disease. These may include medicine, dentistry, nursing, therapy and rehabilitation, nutrition, fitness and hygiene, public health, and veterinary science.

**Human Services** Careers in child care, civil service, education, hospitality, and the social services. These may include law and legal studies, law enforcement, public administration, child and family services, and social services.

**Engineering/Manufacturing, and Industrial Technology** Careers related to the technologies necessary to design, develop, install, or maintain physical systems. These may include occupations in designing, engineering and science, service technicians, transportation, and construction.

**Natural Resources and Agriscience** Careers related to natural resources, agriculture, and the environment. These may include agriculture, earth sciences, environmental sciences, fisheries management, forestry, horticulture, wildlife management, and many agri-business/agri-industry occupations.

## Milan High School Course Offerings

### **AP Capstone Courses and Diploma**

AP Capstone Diploma Program AP Capstone™ is a College Board program that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. It cultivates curious, independent, and collaborative scholars and prepares them to make logical, evidence-based decisions.

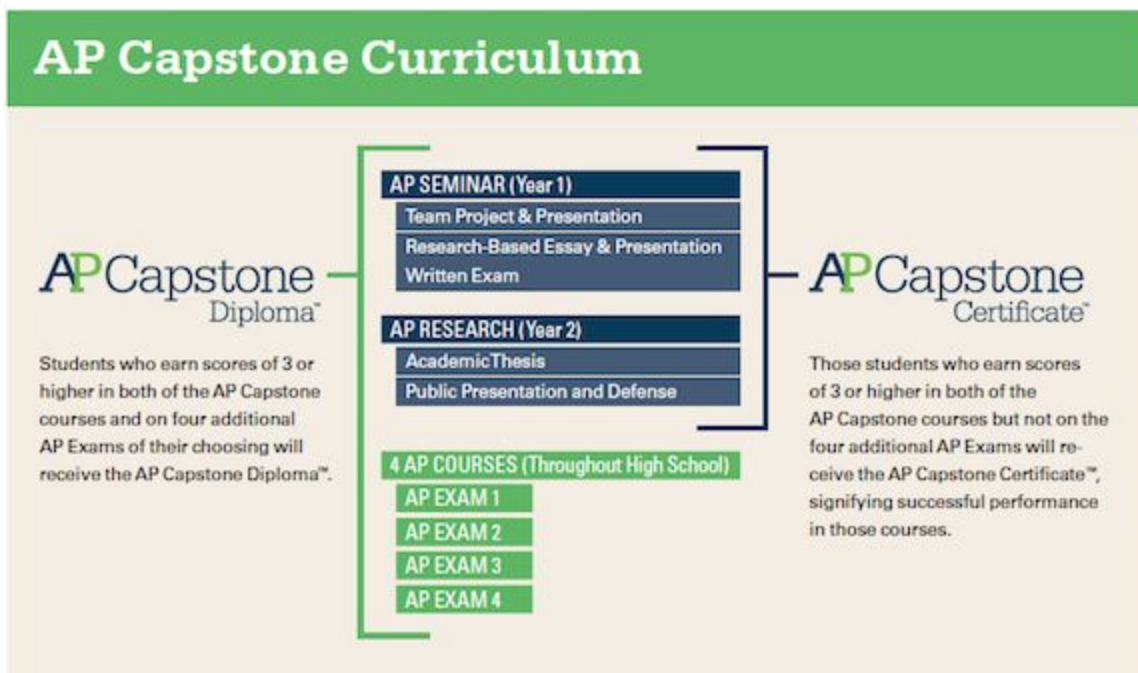
AP Capstone is comprised of two AP courses — AP Seminar and AP Research — and is designed to complement and enhance the discipline-specific study in other AP courses. Participating schools can use the AP Capstone program to provide unique research opportunities for current AP students, or to expand access to AP by encouraging students to master the argument-based writing skills that the AP Capstone program develops. Source: <https://advancesinap.collegeboard.org/ap-capstone>

Students who earn scores of three or higher on AP Seminar and AP research assessments and on four additional AP Exams of their choosing will earn the AP Capstone Diploma™. Students who only earn scores of three or higher on both AP Seminar and AP Research assessments (but not on four additional AP Exams) will earn the AP Seminar and Research Certificate™.

<p><b><u>AP Seminar (year, 1 credit)</u></b> Prerequisite: Must be in 11th grade or in the MCIS program</p>	<p><b><u>AP Research (year, 1 credit)</u></b> Prerequisite: AP Seminar, must be in 12th grade MCIS program</p>
<p>This foundational course, taken in grade 11, provides students with opportunities to think critically and creatively, research, explore, pose solutions, develop arguments, collaborate, and communicate using various media. Students explore real-world issues through a variety of lenses and consider multiple points of view to develop deep understanding of complex issues as they make connections between these issues and their own lives. Students read articles, research studies, and foundational and philosophical texts; listen to and view speeches, broadcasts, and personal accounts; and experience artistic and literary works to gain a rich appreciation and understanding of issues. Teachers have the flexibility to choose appropriate themes that allow for deep exploration based on student interests, local and civic issues, global or international topics, and concepts from other AP courses.</p> <p>Sample Topics or Themes include: Education, Innovation, Revolution, Sustainability, or Technology.</p> <p>Students are assessed with two through-course performance tasks and an end-of-course exam. The AP Seminar score is based on all three assessments and is reported on the standard 1– 5 AP scoring scale.</p>	<p>This is the second course in the series, taken in grade 12 MCIS, it allows students to design, plan, and conduct a yearlong research-based investigation on a topic of individual interest. Through this inquiry and investigation, students demonstrate the ability to apply scholarly understanding to real-world problems and issues. Students further the skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information to build, present, and defend an argument.</p> <p>Students are assessed through culminating performance tasks which include: an academic thesis paper (approximately 5,000 words) with a defined structure, a presentation, performance, or exhibition and an oral defense of research and presentation.</p> <p>The AP Research score is based on these components and is reported on the standard 1– 5 AP scoring scale.</p>



In addition to taking these two courses, those students that would like to earn the AP Capstone Diploma must complete other requirements. See the AP Capstone Graphic below for these requirements.



## Fine Arts and Crafts

### 1VPA301/302 Art I (Year, 1 credit)

*Recommendations: None*

This course lays the groundwork for further studies in the arts or applied arts. It is designed for the beginning art student who has little or no experience but wants to learn to create original designs, learn to draw and to use color. Art I students experiment with most of the media available: paper, pencil, watercolor, tempera paint, pastels, charcoal, and ink. They are involved in exploring numerous design problems, using the principles of design to solve them. Explorations and problem-solving include both two and three-dimensional artwork. Art I students will work with basic perspective, study art history, and the art of other cultures. They will learn to professionally display their art. Participation is a major part of the course. There will also be reading and writing assignments related to art as part of the course.

### 1VPA311/312 Art II (Year, 1 credit)

*Recommendations: 2 Semesters of Art I with at least a C average*

*Career Pathways: Arts and Communication, Engineering/Manufacturing and Industrial Technology*

The first semester of this studio course will focus on two-dimensional drawing and painting. Students will apply the principles of design, using a varied range of media: pastel, charcoal, watercolor, acrylic paint, colored pencil. Drawing on-site in various community locales, figure drawing and portraiture are included in this second year art course. Students will continue to look at art from other cultures and artists from the past and present.

They will be expected to read and write and to devote at least an hour a week to their projects outside

their scheduled class time. In addition, sketchbook homework may require another hour a week. Students will be competitive with art students in our region and in the state through exhibit opportunities (juried and non-juried).

**1VPA321/322 Art III** (Year, 1 credit)

*Recommendations: 4 Semesters of Art I and Art II with at least a C average*

*Career Pathways: Arts and Communication, Engineering/Manufacturing and Industrial Technology*  
Art III is a continuation of Art II.

**1VPA340 Pottery Studio I** (Semester, ½ credit)

*Recommendations: None*

*Career Pathways: Arts and Communication, Engineering/Manufacturing and Industrial Technology*  
Pottery Studio is a hands-on experience designed for the student who prefers working with clay.

Students will learn hand-building techniques including pinch, coil, slab, drape and press mold – making a total of 10 pottery projects during the semester. Students' work is exhibited regularly and they are free to keep or sell their work as long as the \$10 fee is paid.

**1VPA350 Pottery Studio II** (Semester, ½ credit)

*Recommendations: Pottery I with at least a C average*

*Career Pathways: Arts and Communication, Engineering/Manufacturing and Industrial Technology*

This class continues the functional pottery making of Pottery Studio I but with more sophisticated and complex forms. Projects in this class will include the study of ancient pottery of the world, with corresponding artwork. Students will also explore non-functional form, which crosses the boundary into sculpture. Non-traditional glazing methods will be used along with traditional. Students may keep or sell the 10-12 projects they complete during the semester as long as the \$10 fee is paid.

**1VPS360 Pottery Studio III** (Semester, ½ credit)

*Recommendations: Pottery I and II, B or better in Pottery II*

*Career Pathways: Arts and Communication, Engineering/Manufacturing and Industrial Technology*

Pottery III students will continue to pursue the traditional pottery of other countries and have a chance to explore the potter's wheel. Recommended for students with a strong interest in ceramics, who can self-direct their pottery making. This class is offered at the same time as Pottery II if space is available.

## **Graphic Arts**

**1VPA100 Beginning Computer Graphics** (Semester, ½ credit)

*Recommendations: none*

*Career Pathways: Arts and Communication, Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

This course is designed to give the student an overview of the graphic arts with an emphasis on basic design. A variety of fundamental printing techniques will be explored including silk screen and/or linoleum cut. The emphasis will be on visual impact, neatness and organization. The course objectives culminate in the design of a corporate image. The final project is the completion of a portfolio of the student's work. A fee of \$5 will be charged for course materials. This is a hands-on class.

**1VPA410 Computer Graphic Design** (Semester, ½ credit)

*Recommendations: Teacher recommendation*

*Career Pathways: Arts and Communication, Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

This course will continue to enrich the student's knowledge of graphic arts as it relates to desktop publishing. Students will produce ad layouts, product and packaging design, and camera ready art using PageMaker. A continued emphasis will be placed on graphic design, layout and the impact of color and type. The semester's work will be added to the student's portfolio. A fee of \$5 will be charged for course materials. This is a hands-on class.

**1VPA420 Advanced Computer Graphic Design** (Semester, ½ credit)

*Recommendations: Computer Graphic Design and Teacher recommendation*

*Career Pathways: Arts and Communication, Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

This course will continue to enrich the student's knowledge and experience in the area of graphic arts as it relates to desktop publishing, scanning and photo manipulation. Using PageMaker and PhotoShop, students will create complete graphic packages to solve problems as if they were working in a graphics studio. Problem solving will be the focus as the students use color, art and type to create a mood and target an appropriate audience. Students must be able to work independently, be organized, and be efficient time managers. Students will be required to research graphic art careers. This is a hands-on class.

**1PPA430 Computer Graphic Design Studio** (Semester, ½ credit)

*Recommendations: Beginning Graphic Arts and Computer Graphic Design, Advanced Computer Graphic Design, teacher recommendation.*

*Career Pathways: Arts and Communication, Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

This course will continue to expand the student's knowledge and experience in the area of graphic arts. Desktop publishing, scanning and photo manipulation using PageMaker and PhotoShop will be the focus. Students will create graphic packages to solve problems they would encounter working in a graphics studio. Problem solving will be the focus as the students use color, art and type to create a mood and target an appropriate audience. Students must be able to work independently, be organized, and be efficient time managers. Students will be required to research graphic art careers. This is a hands-on class.

## **Business Department**

**1TCH121/122 Accounting I** (Year, 1 credit)

*Recommendation: Grades 10-12*

*Career Pathways: Business, Management, Marketing, and Technology*

Accounting is the study of the methods and systems of preparing and maintaining financial records. The

subject includes a study of basic principles of accounting, the accounting cycle and the preparation and analysis of financial records for both the business and the individual. Students will develop critical-thinking and problem-solving skills throughout this class. Emphasis is placed on the necessity for accuracy and following instructions.

**1TCH131/132 Accounting II** (Year, 1 credit)

*Recommendation: Successful completion of two semesters of Accounting I*

*Career Pathways: Business, Management, Marketing, and Technology*

This course begins with a review of the basic accounting principles. Areas of study include partnerships, corporate accounting, cost accounting, computerized accounting and analyzing of financial information. This course has a heavy emphasis on computerized accounting.

**1TCH201/202 General Business** (Year, 1 credit)

*Recommendations: None*

*Career Pathways: Business, Management, Marketing, and Technology*

This course is designed to help students understand our global economy. The focus is on the general principles of business, marketing, and entrepreneurship. In this class students will explore the concepts of marketing and learn how to effectively communicate in the business world. The core standards of marketing are utilized throughout this course and include: distribution, marketing-information management, pricing, product and service management, promotion, selling, and financing.

**1TCH201/202 Business - School Store** (Year, 1 credit)

*Recommendation: 2 semesters of General Business with a B- or better, and teacher approval.*

*Career Pathways: Business, Management, Marketing, and Technology*

This course will help students learn how to successfully work in and operate a school store. Students will learn the business functions involved in running a successful school-based enterprise, as well as the skills and attitudes required in any job. Students will study accounting, promotion, planning, managing, and selling. Students will also be required to work in the school store with a predetermined amount of time in the store during the school day as well as outside of school.

**1TCH301/302 Advanced School Store** (Year, 1 credit)

*Recommendations: 2 semesters of School Store with a B- or better, teacher approval, attendance records, past experience and references may also be required.*

*Career Pathways: Business, Management, Marketing, and Technology*

This course will help students further develop and apply their skills in management and marketing. Problem-based learning is utilized to gain competencies in store management and entrepreneurship including inventory control, purchasing, cash management, store security, merchandising, promotion and human relationships. Students will gain valuable workplace skills and be involved in the day-to-day management of the school store.

**1TCH1TCH281/282 Personal Finance** (Year, 1 Credit)

*Recommendation: 11<sup>th</sup> or 12<sup>th</sup> grade students*

*Career Pathways: Business, Management, Marketing, and Technology*

Personal Finance is designed to teach students about financial literacy and how the choices they make directly influence occupational goals and future earnings potential. The real world topics covered include income, money management, spending and credit, saving and investing, as well as risk management. Students will design personal and household budgets utilizing checking and savings

accounts, gain knowledge of finance, debt and credit management, and evaluate and understand insurance and taxes.

## **Technology Courses**

All courses are electives. There are many courses offered that will benefit the college-bound student as well as the employment-bound student. A wide range of courses are available, and students are encouraged to make careful selections which fulfill their interests and goals. Classes fill early so students are urged to register well in advance.

### **1TCH230 Architecture I** (Semester, ½ credit)

*Recommendations: None, but CAD recommended Grades 10-12*

*Career Pathways: Engineering/Manufacturing and Industrial Technology*

Students will learn design elements off different parts of a house....creating foundation plans, sectional views, roof plans, elevations and floor plans for living rooms, bathrooms, garages, foyers, kitchens, and more. Students will be learning a 3D solid modeling program called Revit and will be able to produce “Walk throughs” of the rooms and houses designed.

### **1TCH240 Architecture II** (Semester, ½ credit)

*Recommendations: Must pass Arch I Grades 10-12*

*Career Pathways: Engineering/Manufacturing and Industrial Technology*

This class is a continuation of Arch I using the same program Revit as learned in Arch I. Students will design a house plan and create a scale model of the design, they will design a neighborhood plan and create houses both on Revit and Scale models of those houses into the neighborhood design, and may enter a state contest in designing a set of house plans.

### **1TCH250 Architecture III** (Semester, ½ credit)

*Recommendations: Must have passed Arch II. Grades 11-12*

*Career Pathways: Engineering/Manufacturing and Industrial Technology*

This class is typically an independent study option. Students will choose an Architectural path that they would like to pursue more and design plans using Revit.

### **1TCH401/402 Introduction to Engineering Design and Transportation** (Year, 1 credit)

*Recommendations: no prerequisites*

*Career Pathways: Engineering/Manufacturing and Industrial Technology*

This class revolves around the design and engineering process with an emphasis on solving Water, Land, Space, and Air transportation problems. We will also look at how products are made, manufactured, and packaged. The class teaches technical drawings, working in groups, and will have many hands on activities

### **1TCHPBL101/102 Technology Applications** (Year, 1 credit)

*Recommendations: 12<sup>th</sup> Grade*

*Career Pathways: Engineering/Manufacturing and Industrial Technology*

During the course of the year MCIS students will learn to use a wide variety of digital literacy fundamentals. The learning of these 21st Century skills will be woven into the MCIS project based

learning curriculum. These skills include, but are not limited to, using productivity applications, including word processing, spreadsheet, presentation, and digital video production. The learning of technological literacies will take place in the desktop, mobile, and cloud environments.

## **Computer Technology**

### **1T210 Internet & Design** (Semester, ½ credit)

*Career Pathways: Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

The Internet course is designed for students as an elective course. The internet course hits many different types of programs and software from , Pivot, Scratch (video game design), video editing, creating web pages on various subjects of technology, using Gimp to create flyers and posters, Audacity for podcasts, and the MIT App inventor to create apps for your phone. This course is designed for one semester.

Introduction to Computer Science

### **1T300 C++ Computer Programming** (Semester, ½ credit)

*Recommendations: 11th or 12th Grade, C in Internet and/or Intro to Computers, and B in basic Algebra.*

*Career Pathways: Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

Students will be introduced to the basics of programming using C++. They will learn the different types of variables, constants, if statements, loops, algorithms, and other programming strategies. This programming course will give students an insight into whether they would like to pursue computer programming as a career.

### **1T200 Technology & Society** (Semester, ½ credit)

*Recommendations: None*

*Career Pathways: Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

This course will analyze modern and past technologies, and their impact on society and the environment; in addition to predicting the effect of upcoming technologies and their impacts.

### **1T420 Systems & Hardware** (Semester, ½ credit)

*Recommendations: Introduction to Computers*

*Career Pathways: Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

Individual problem solving; and an understanding of how passage of time has affected computer technology will be the focus of this course; with the primary focus being on x86 architecture.

### **1T520 AP Computer Science** (Semester, ½ credit)

*Recommendations: 11th or 12th Grade, C in Internet and/or Intro to Computers, and B in basic Algebra.*

*Career Pathways: Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

Students will apply technology to critical thinking, creative expression, and decision making skills through an introduction to the basics of programming with JAVA; including, but not limited to learning about Control Statements – If statements, Boolean expressions, variables and constructors, and Marine Biology Simulation.

## **English**

Four credits of English are the minimum requirement for graduation. If a student takes double-blocked English 10, they will be responsible for earning 5 credits of English.

### **1ENG101/102 English 9** (Year, 1 credit)

*Recommendation: None*

English 9 is a yearlong course that focuses on literature, vocabulary, composition and grammar. The course will enable each student to improve the language skills they have brought to the high school. Students are expected to improve their writing skills and display a comprehension of the literature covered in class. This course involves extensive reading and writing in multiple genres. Work will concentrate on vocabulary development, grammar and composition skills, reading and literature, and research techniques.

### **1ENG103/104 Honors English 9** (Year, 1 credit)

*Recommendation: English teacher recommendation; fulfills 9<sup>th</sup> grade English requirement*

Honors English 9 is a yearlong course designed for those students who have a firm grasp on basic grammar and sentence structure, are prepared to read and write extensively, and are independent learners. This course moves much faster than English 9 and requires the reading of additional literary works and compositions. Honors English 9 students will focus on the following: vocabulary building, advanced grammar and composition, critical thinking and reading skills, complex literature, and research techniques. Students will be required to read 12 novels throughout the year and complete a writing portfolio.

### **1ENGB111/112 English 10** (Year, 2 credit or 1 credit)

*Recommendation: Successful completion of English 9; fulfills 10<sup>th</sup> grade English requirement*

This course focuses on the following areas: word usage, grammar and composition, reading and literature, as well as research skills. This course is geared toward developing real life skills. Students will complete brief research papers, letters (business and friendly), technical writing, novels and short stories related to everyday life. This course does not waive one of the English credits required for graduation. Students electing English 10 will earn an additional credit above and beyond the 4 ½ required for graduation from MHS.

### **1ENG211/212 Honors English 10** (Year, 1 credit)

*Recommendation: Successful completion of the 9<sup>th</sup> grade English requirement and English teacher recommendation*

This course is primarily geared toward students whose strengths lie in the field of English. Work will focus on the following areas: vocabulary building, grammar and composition, reading and literature, and research techniques. Honors English 10 is portfolio-based, and completion of a final portfolio is required. In addition, students must complete three interactive book journals, several formal essays and

creative writing pieces, and a ten-page research paper. Students are also required to submit two composition pieces for publication outside of the classroom.

**1ENG131/132 English 11** (Year, 1 credit)

*Recommendation: Must have successfully completed English 10 or 10A; fulfills 11<sup>th</sup> grade English requirement*

English 11 is designed to provide additional training in the basics of English. Attention is given to grammar, vocabulary, the mechanics of writing, and analysis of literature. Students are evaluated by daily assignments, quizzes and tests, paragraph or short essay writing, and class participation.

**1ENG141/142 Integrated English** (Year, 1 Credit)

*Recommendation: 11<sup>th</sup> Grade*

The English department recommends all 11<sup>th</sup> grade students to take Integrated English unless they are taking honor/AP courses or two other English courses. This course will focus on critical reading and writing. Within critical reading, students will focus on sentence structure, vocabulary and word choice, and short and long reading comprehension. Students will investigate concepts such as word roots, synonyms and antonyms, as well as the cause and effect relationship in sentences. For critical writing, students will focus on the construction and analysis of persuasive writing across all content areas, but with specific emphasis on science and social studies concepts. Students will investigate concepts such as language and word selection, presentation of ideas, and clearly stating point of view through repetitive use of writing, editing, and revising.

**1ENG151/152 English 12**

*Recommendation: Successful completion of English 9, English 10, English 11*

Course Description: This course will build upon your knowledge from English 9, English 10, and English 11 while also providing an extension of the material learned in Speech. We will integrate the main themes from these classes and then build upon them by delving deeper into topics through a cross-curricular project-based learning environment. Material will be presented within the context of real-world problems that will force students to apply knowledge, understanding and research skills as well as elements of the writing and speaking processes to organize and present their findings and solutions. Students will be expected to work both individually and collaboratively throughout the year on both written and oral products.

**Honors English 12**

*Prerequisite- Must be concurrently enrolled with AP Research in MCIS*

Course Description: This course provides a more rigorous and in depth course that moves at a quicker pace building upon knowledge from English 9, English 10, and English 11 while also providing an extension of the material learned in Speech. This course is intended for those students seeking a four year degree and who are currently enrolled in AP Research. We will integrate the main themes from these classes and then build upon them by delving deeper into topics through a cross-curricular project-based learning environment. Material will be presented within the context of real-world problems that will force students to apply knowledge, understanding and research skills as well as elements of the writing and speaking processes to organize and present their findings and solutions. Students will be expected to work both individually and collaboratively throughout the year on both written and oral products.

**1ENG201/202 Advanced Placement English Language and Composition** (Year, 1 credit)



*Recommendation: Must be in 11<sup>th</sup> grade, have successfully passed English 10A, or English 11 and have English instructor recommendation.*

AP English is a specialized course for college-bound students who demonstrate exceptional aptitude and interest in advanced English studies. The emphasis is on a variety of writing styles, including but not limited to, logical organization, sentence structure, word choice, rhetoric, detail, tone and voice, while reflecting upon different literary genres.

AP English students will be strongly encouraged to sit for the College Board AP Exam administered in the spring, with a possibility of advanced standing or credit in college English/Literature. All test fees paid by the student.

**1ENG301/302 Advanced Placement English Literature and Composition** (Year, 1 credit)

*Recommendation: Must be in 11<sup>th</sup> or 12<sup>th</sup> grade, have successfully passed AP English Language and Composition, and have an English instructor's recommendation.*

AP English literature is a specialized course for college-bound juniors and seniors who have taken AP English language and who demonstrate exceptional aptitude and interest in advanced English studies. In literature, the emphasis is on major British, American, and world authors and their works from the Renaissance to the present. In composition, the emphasis is on expository and analytical essays, research, and prompt writing.

AP English students will be strongly encouraged, but not required, to take the College Board AP Exam administered in the spring, with a possibility of advanced standing or credit in college English or the Humanities. The student is responsible for all test fees.

**1ENG341/342 Composition** (Year, 1 credit)

*Recommendation: Students must be in 10<sup>th</sup>, 11<sup>th</sup>, or 12<sup>th</sup> grade*

*Career Pathways: Arts and Communication*

This course will focus on the formal composition process with emphasis on the skills of reasoning, rhetoric, research, and basic writing matters, such as thesis, organization, support and development, paragraphing, sentence structure, word choice, punctuation, documentation, and voice.

**1ENG100 Speech** (Semester, ½ credit)

*Recommendation: Available for 9<sup>th</sup> - 12<sup>th</sup> grades*

*Career Pathways: Arts and Communication*

This course will focus on developing speech communication skills. Prepared speeches will include manuscript, information, demonstration, and persuasion. This course will also include units on listening, speaking techniques, stage fright, and oral interpretation.

**1ENG200 Debate** (Semester, ½ credit)

*Recommendation: Available 9<sup>th</sup> – 12<sup>th</sup> grades; approval of counselor or instructor*

*Career Pathways: Arts and Communication*

This course is designed to teach the basics of debate and is open to any interested students. Students will learn effective research techniques, how to deliver structured, legal arguments, and how to develop public policy. Requirements include the development of two affirmative case and plans, ten negative briefs, 200 evidence cards, and participation in four debates.

**1ENG291/292 Yearbook I** (Year, 1 credit)

*Recommendation: Application, interview and permission of instructor*

*Career Pathways: Arts and Communication*

Students will learn and apply photojournalistic skills. Students will use the language and layout skills necessary to prepare the MILANIUM, the historical record of the high school. Work will focus on verbal and visual expression as students gain knowledge of all facets of yearbook preparation including advertising, merchandising, and photography.

**1ENG300 Debate II** (Semester, ½ credit)

*Recommendation: Available 10<sup>th</sup> – 12<sup>th</sup> grades; approval of counselor or instructor*

*Career Pathways: Arts and Communication*

This course is designed to refine the skills developed in Debate I. Students will study debate theory, research the current resolution, and participate in in-class tournament competition. Students may also be expected to participate in interscholastic debate tournaments.

**1ENG350 Radio Broadcast Communication** (Semester, ½ credit)

*Recommendation: 11<sup>th</sup> – 12<sup>th</sup> grade*

*Career Pathways: Arts and Communication*

The class is designed to teach the basic fundamentals of public speaking in the context of radio broadcasting. Students in this course learn how to write for the airwaves and then write and record station IDs, commercials, music programs, public service announcements, feature news articles, sports news, weather reports, interview, and dramas. Public relations will be covered in the context of a commercial campaign. After twelve weeks of practice and training the students who have successfully completed their work will run the school radio station Milan High Radio, Kickin' It Up a Notch during lunch.

**1ENG360 Advanced Radio Broadcast Communication** (Semester, ½ credit)

*Recommendation: Teacher permission, passed Radio Broadcast Communication with a B or better*

*Career Pathways: Arts and Communication*

Students who are interested in pursuing radio broadcasting will build on what was covered in the beginning class and work on similar yet more demanding assignments. The students will also run the radio station and do shows for each lunch. They will complete the year by preparing an hour long program to be aired on the Internet on a genre of music.

**1ENG370 Video Film/Television** (Semester, ½ credit)

*Recommendation: Must be in 11<sup>th</sup> or 12<sup>th</sup> grade*

*Career Pathways: Arts and Communication*

Using video film as the medium, the basic fundamentals of public speaking will be taught with an emphasis on the use of voice and body to communicate to an audience. Eight major assignments will give the students an opportunity to write and record on film everything from public service announcements to documentaries. The basic techniques of film production will be covered along with the responsibilities of the people involved.

**1ENG380 Advanced Video Film/Television** (Semester, ½ credit)

*Recommendation: Passed Video Film Communication (with a B or better) and have instructor permission*

*Career Pathways: Arts and Communication*

Students will build on the subject matter from the first semester and apply it to assignments designed and carried out by the students themselves. In addition, the students will compete in MIPA contests at the state level, work on Public Broadcast assignments, and develop a news show for MHS.

**1ENG351/352 Drama for the Actor** (Year, 1 credit)

*Recommendation: Students must be in 10—12th grades*

*Career Pathways: Arts and Communication*

This course is designed with the student actor in mind. Students will explore all aspects of acting, from exercises and activities to make-up and costuming. Students will also focus on play reading and analysis, essentials of theatre history, and basic technical skills. Student actors will produce, perform, and run all technical aspects of a complete show by the end of the year. Some service toward current school productions is required.

**1ENG361 Advanced Drama** (Semester, ½ credit)

*Recommendation: Students must be in 11<sup>th</sup> or 12<sup>th</sup> grade, successful completion of Drama*

*Career Pathways: Arts and Communication*

The advanced drama curriculum will revolve around the needs of the production at hand. Students will receive in-depth instruction in lighting, make-up, set design, sound, costume, advertising, directing, producing, and acting. Specific emphasis will vary by term, allowing the student to receive additional credit in subsequent terms.

## **World Languages**

Learning a world language increases students' range of communication and knowledge of the customs of other nations. Also, a world language can greatly help add to students' knowledge of English. A good background in grammar leads to greater success in learning a world language. All students need to complete two years in one world language as a graduation requirement. Students who plan to attend college should investigate world language requirements at the college(s) of their choice. In most cases, it is highly recommended that college-bound students have at least three world language courses in high school.

**1F101/102 Spanish I** (Year, 1 credit)

*Recommendations: None*

This course is a basic introduction to Spanish with an emphasis on listening and speaking, proper pronunciation and vocabulary acquisition. The course also includes basic grammar, reading, and learning about cultures of Spanish speaking people.

**1F201/202 Spanish II** (Year, 1 credit)

*Recommendations: Spanish I*

Some time is spent reviewing the grammar and vocabulary taught in Spanish I. An emphasis is placed on vocabulary and conversation with daily life themes and the past tense. We will continue and deepen our understanding of Hispanic cultures.

**1F301/302 Spanish III** (Year, 1 credit)

*Recommendations: Spanish II*

This course involves strengthening areas in speaking, writing, reading, and listening. The students continue to add to their Spanish vocabulary and learn about the cultures of different Spanish speaking countries. Emphasis will be placed on learning and using two different past tenses.

**1F401/402 Spanish IV** (Year, 1 credit)

*Recommendations: Spanish III*

Spanish IV continues to strengthen areas of student speaking, writing, reading, and listening. Three new verb tenses(conditional, future, and subjunctive) are covered this year as well as new vocabulary. There is a focus on Spain, literature, and Hispanic culture.

**1F501/502 Spanish V** (1 year Credit)

*Recommendations: Spanish IV*

Spanish V is a course focused on broadening and strengthening of the skills learned in Spanish IV. We will work to expand students' vocabulary base and grammar understandings. Increased emphasis will be placed on oral communication, creative writing and literary analysis at an advanced level. Different cultural topics will be studied, including social, religious, and political issues affecting Spanish speaking countries. Also, there will be emphasis on the environment, job applications, interview skills, and careers.

## **Life Management Education**

In the belief that education should promote the growth of the whole individual—physical, intellectual, emotional and social – the Life Management Education Program encourages and supports the stability of the family unit. This is accomplished through the development of each member of the family, as a responsible independent individual, and as a contributing participant of society.

Courses strive to assist all students in attainment of their individual potential through the development of:

- Essential living skills
- Human relations skills
- Consumer skills for obtaining, allocating and conserving resources
- Career exploration skills
- Life-management skills needed to coordinate the multi-role functions of day-to-day living and working throughout the life cycle
- Risk-management skills

**1PEH610 Health** (Semester, ½ credit)

*Recommendation: None. Required for graduation.*

*Career Pathways: Arts and Communication, Health Services, Human Services, Natural Resources and Agriscience*

The Health class is a 1-semester course required for high school graduation. It is intended to provide students with a brief, but intense, introduction to the major concept areas associated with “healthy living”: the concept of total wellness, disease and infectious disorders, substance use and abuse,

addictive behaviors, reproductive health, and risk management. Embodied in this practical approach to understanding good health is the underlying theme that young people must assume responsible initiative in maintaining their own good health through informed choice.

Students will reference various supplemental readings as provided by numerous community health agencies, as well as the course text, “Holt Health” (copyright, 1999). They will also be provided with reprints from Jackie Sower’s text (State Board of endorsed curriculum) entitled “Understanding Sexuality”. In addition, students will receive information from the MPD on alcohol and the law, Michigan’s Zero Tolerance law for minors, Harassment and Sexual Misconduct law, and the meaning of juvenile/adult status as it relates to other areas of “risk”.

Finally, because material associated with ‘sexual health’ is taught in this course, and because the State of Michigan-Department of Education requires such, parents will be advised of specific course content and associated dates that correspond with presentation of this material. An alternative, independent offering in sexual health will be available upon request.

### **1PEH801/802 Personal and Family Dynamics** (Year, 1 credit)

*Recommendation: 11<sup>th</sup>–12<sup>th</sup> Grades*

*Career Pathways: Health Services, Human Services*

This course is developed to promote greater understanding of self and family through the study of family dynamics. From an interpersonal perspective, students examine such topics as self-esteem and mental health, stress management and the formation and maintenance of relationships through the development of communication skills. From a family-centered perspective, the course focuses on such topics as stages in the family life cycle, marriage readiness, violence in the family, drug and alcohol abuse and its impact on families, family blending through separation and divorce, and the needs of children in families from infancy through young adulthood.

All topics are presented and discussed from a problem-solving and conflict-management perspective through the use of guest speakers, video presentations, class discussion and in-class readings.

### **1ELE201/202 Peer Mediation** (Year, 1 credit)

*Recommendation: 11<sup>th</sup>–12<sup>th</sup> Grades*

Pre-requisites: Submitted application and letter of recommendation from staff member

*Career Pathways: Health Services, Human Services*

Peer Mediation is an elective, which teaches students how to help their peers mediate conflict peacefully and without intervention from administrators or staff. During the first semester, students go through a one-day workshop in which they learn about and practice the steps to mediation, ground rules, management techniques, and closure skills. In class, students work on related curriculum, practice mediation techniques, and research various topics related to mediation. Periodic guest speakers and other community involvement methods are components of this class. While GPA is not a decisive factor in selection, students must be able to sustain occasional disruptions to their academic schedule.

Students in this course take their responsibility as peace-makers very seriously and contribute the community well-being in a variety of ways. Past projects have involved participation in community anti-bullying forums, Adopt-A-Family holiday projects, and projects with St. Joe’s Pediatric Unit.

## **Mathematics**

Students are required to earn four credits in mathematics, and must have a math experience during their senior year.

**1MTH101/102 Algebra** (Year, 1 credit)

*Recommendation: None*

The content of this course integrates geometry, probability, and statistics together with algebra. Variables, exponents, graphing, systems of equations, and factoring are introduced using real world applications. This course lays the foundation for geometry.

**1MTH351/352 Geometry** (Year, 1 credit)

*Recommendation: Successful completion Algebra or recommendation of math teacher.*

This course is the study of plane, solid and coordinate geometry. Algebra and discrete mathematics are integrated throughout. A study of inductive and deductive reasoning, logic, the nature of proofs, congruent and similar polygons, transformation, area and volume are covered.

**1MTH353/354 Honors Geometry** (Year, 1 credit)

*Recommendation: Successful completion Algebra with an A or B, recommendation of math teacher and NWEA/Mstep/PSAT scores.* The rigor and pace of this course is for the student who intends to take AP Calculus their senior year. This course is the study of plane, solid and coordinate geometry. Algebra and discrete mathematics are integrated throughout. A study of inductive and deductive reasoning, logic, the nature of proofs, congruent and similar polygons, transformation, area and volume, and foundation of trigonometry concepts are covered.

**1MTH201/202 Advanced Algebra** (Year, 1 credit)

*Recommendation: Successfully completion Algebra and Geometry or recommendation of math teacher*

Advanced Algebra takes what was learned in previous math courses about solving problems where one or more variables is unknown and goes into greater depth using the standard algebra operations such as order of operations, addition and multiplication properties of equality, etc. Some new ways of solving real world problems, especially using matrices and logarithms, are introduced. The use of graphing calculators is incorporated and will be used in follow-on math courses.

**1MTH203/204 Honors Advanced Algebra** (Year, 1 credit)

*Recommendation: Successful completion of Honors Geometry with an A or B, recommendation of math teacher and NWEA/Mstep/PSAT scores.* The rigor and pace of this course is for the student who intends to take AP Calculus their senior year. Honors Advanced Algebra takes what was learned in previous math courses about solving problems where one or more variables is unknown and goes into greater depth using the standard algebra operations such as order of operations, addition and multiplication properties of equality, etc. Some new ways of solving real world problems, especially using matrices and logarithms, are introduced. The use of graphing calculators is incorporated and will be used in follow-on math courses.

**1MTH401/402 Integrated Math I** (Year, 1 credit)

*Recommendation: Successful completion of Algebra and Geometry or recommendation of math teacher*

This class integrates the main themes from geometry and advanced algebra and then builds upon them by delving deeper into topics such as complex quadratic and polynomial equations, conic sections,

advanced trigonometric identities, and complex probability, etc. This class also shows new ways to solve problems which involve crossover subjects such as solving a system of equations which involves either volume or area equations. This class also introduces new techniques to solve real-life and word problems. We will also take time to further our knowledge of graphing calculators. Integrated Math I may serve as a Recommendation for pre-calculus.

**1MTH 411/412 Integrated Math II** (Year, 1 credit)

*Recommendation: Successful completion of Algebra, Geometry, Adv. Algebra, and Integrated Math 1*

This course will build upon your knowledge from algebra, geometry, advanced algebra, and provide an extension of the material learned in integrated math I. We will integrate the main themes from these classes and then build upon them by delving deeper into topics such as Building and Interpreting Functions, Probability and Simulation, Polynomial Functions, Quadratic Relations, and Trigonometry. Material will be presented with-in the context of real-world problems that will force students to apply theories and principles to support their solutions. Students will be expected to work both individually and collaboratively throughout the year.

**Honors Integrated Math II**

*Prerequisite- Must be concurrently enrolled with AP Research or AP Seminar in MCIS*

**1MTH601/602 Pre-Calculus and Discrete Mathematics** (Year, 1 credit)

*Recommendation: Successful completion of Advanced Algebra and recommendation of math teacher.*

*Career Pathways: Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

This course integrates the mathematics need for calculus with the fundamentals of discrete mathematics. Special attention is given to the study of functions (polynomial, rational and trigonometric). Recursion, mathematical induction, logic and reasoning, Sequences and limits, polar coordinates, and the use of graphing calculators are covered.

**1MTH701/702 AP Calculus** (Year, 1 credit)

*Recommendation: C or better in Pre-Calculus and recommendation of math teacher.*

*Career Pathways: Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

This course is the fifth course in the college preparatory sequence. It prepares students well for an introductory calculus course in college, and very successful students will be prepared for a second course in the college calculus series. It reviews the Cartesian plane, functions, and limits, and introduces derivatives, integration, applications of derivatives and integrals, integration techniques and infinite series. If time, we will also introduce and develop principals of statistics and probability.

AP Calculus students will be strongly encouraged, but not required, to take the College Board AP Exam administered in the spring, with a possibility of advanced standing or credit in college mathematics. All test fees paid by the student.

**1MTH801/802 AP Statistics** (Year, 1 credit)

*Recommendation: Passing Grade (C- or better) Pre-calculus and recommendation of math teacher.*

*Career Pathways: Business, Management, Marketing, and Technology, Engineering/Manufacturing and Industrial Technology*

This course is designed to help students pass the AP Statistics test so that they may gain college credit. Topics included are graph distributions, normal distributions, correlation and regression, two variable relationships, designing experiments, probability, confidence intervals, etc. AP Statistics students will be strongly encouraged, but not required, to take the College Board AP Exam administered in the spring, with a possibility of advanced standing or credit in college mathematics. All test fees are to be paid by the student.

## **Music**

### **1VPA101/102 Band** (Year, 1 credit)

*Recommendation: 9-12 grade students*

*Career Pathways: Arts and Communication*

Band is organized as a performance-oriented class; consequently its activities and class work are planned with the specific goal of improving either individual or group performance. Band rehearses during one block on alternating days. The school furnishes music and large instruments. All new students should see the director before selecting band.

### **1VPA101/102 Concert Band** (Year, 1 credit)

*Recommendation: 9-12 grade students*

*Career Pathways: Arts and Communication*

The High School Band is designed to accommodate the average band student. Concepts and music are studied which reflect the general ability level of the group. The focus of the course is Concert Band, which performs several concerts per year including district band festival and the annual collage concert. In addition, group members perform at all home football games, selected basketball games, as well as local parades. All students in this course will be involved in marching band, pep band, and concert band.

### **1VPA101/102 High School Wind Ensemble** (Year, 1 credit)

*Recommendation: 9-12 grade students and permission of instructor*

*Career Pathways: Arts and Communication*

The Milan High School Wind Ensemble is an advanced group for high school musicians in grades 9 through 12. Musicians in this class are expected to be of the highest caliber. Players are no more than two on a part, so a willingness to perform at a soloist level is a requirement for this course. The Wind Ensemble will perform at several concerts, competitions, community events, and athletic games throughout the year. Players in this group should also be prepared to work on literature suitable for Solo and Ensemble Festival and other similar honors band competitions. Wind Ensemble players will also perform in conjunction with the High School Band throughout the school year. Players who would like to switch instruments or to play a secondary instrument in order to be a part of this ensemble should contact Mrs. Upton. Director placement/director permission to be a part of the Wind Ensemble is required.

### **Wind Ensemble Instrumentation**

Flute, 2	Alto Saxophone, 2	French Horn, 1
Oboe, 1	Tenor Saxophone, 1	Baritone, 1
Bassoon, 1	Baritone Saxophone, 1	Trombone, 3
Clarinet, 4 or 5	Trumpet, 3	Tuba, 1



Percussion, 3

**1VPA601/602 Music Theory** (Year, 1 credit)

*Career Pathways: Arts and Communication*

Music theory is open to students interested in music notation, melody, rhythm, harmonic construction, and composition. Experience as a band or choir member-- or strong experience on piano or guitar-- is highly recommended for success in this course. Course approval by the instructor is required.

**1VPA201/202 Concert Choir** (Year, 1 credit)

*Recommendation: Audition with teacher to demonstrate ability to match pitch and fundamental musical ability necessary for high school level performing.*

*Career Pathways: Arts and Communication*

Concert Choir is a mixed, SATB, performing choral ensemble open to students in grades 9-12 by audition. This course is both a performing ensemble and an academic class. The choir curriculum guides students to develop performing skills, musical skill development and vocal development. Concert choir performs several times each school year including school concerts and festival activities through the Michigan School Vocal Music Association. Students wishing to audition for the choir should contact Mrs. Powell for an appointment.

**1VPA211/212 Chamber Choir** (Year, 1 credit)

*Recommendation: Audition with teacher to demonstrate ability to match pitch and fundamental musical ability necessary for high school level performing.*

*Career Pathways: Arts and Communication*

Chamber choir is open to a select number of vocal musicians who wish to experience an advanced vocal performance opportunity. Literature of all time periods will be studied and attendance at events outside of the school day is required. This course is open to students by instruction permission/audition only.

## **Physical Education**

**F.A.S.S.T** (Flexibility, Agility, Speed and Strength Training)

The F.A.S.S.T. Physical Education curriculum is designed to focus on skills and fitness-based training. This combines Olympic weight training principles and various cardiovascular training techniques. These include: hurdle stretching, dynamic flexibility, speed training, endurance training, powerlifting, Olympic lifting and Kettlebells.

**The following is the planned track for the students' as they enter high school:**

**1PEH200 F.A.S.S.T. Fitness I** (Semester, ½ credit)

*Recommendations: Grade 9 or first year P.E. students.*

*Career Pathways: Health Services, Human Services*

This course is the foundation of general fitness and or sports' strength and conditioning program. This course must be taken as a Recommendation to all other P.E. Courses.

**1PEH210 F.A.S.S.T. Fitness II** (Semester, ½ credit)

*Recommendations: Successful completion of F.A.S.S.T. Fitness I*

*Career Pathways: Health Services, Human Services*

This course will be for athletes who want to continue to focus on improving their strength and

conditioning. It will be an advanced, workout based class.

**1PEH220 F.A.S.S.T. Fitness III** (Semester, ½ credit)

*Recommendations: Successful completion of F.A.S.S.T. Fitness I and F.A.S.S.T. Fitness II*

*Career Pathways: Health Services, Human Services*

This course will focus on college level strength and conditioning.

**1PEH350 Recreational Swimming** (Semester, ½ credit)

*Recommendations: None*

*Career Pathways: Health Services, Human Services*

This elective class is offered to students who enjoy swimming and want a P.E. credit. The student should like swimming and will swim every day. The class will focus on the instruction of all basic strokes and diving and water games.

**1M130 Advanced Swimming** (Semester, ½ credit)

*Recommendations: Skilled swimmer or approval of instructor*

*Career Pathways: Health Services, Human Services*

This course is divided into distance swimming, stroke work and weight training.

**1M230 Aquatics/Lifeguard Training** (Semester, ½ credit)

*Recommendations: 15 years old, Ability to swim 500 yards*

*Career Pathways: Health Services, Human Services*

This elective class is offered to students that enjoy swimming and want a P.E. credit. The student should like swimming and will swim every day. Class content: Instruction of all basic strokes, basic life saving, diving and water games, Red Cross Certification in CPR may be available at the end of semester, and students will serve as aids in Elementary and Middle School classes.

**1M400 Individual Skills/Techniques for Girls** (Semester, ½ credit)

*Recommendations: Instructor Approval, Grades 10-12*

*Career Pathways: Health Services, Human Services*

A class designed for female athletes with particular emphasis on weight training and individual techniques in basketball, volleyball, softball, and soccer.

**1M401 Individual Skills/Techniques for Boys** (Semester, ½ credit)

*Recommendations: Instructor Approval, Grades 10-12*

*Career Pathways: Health Services, Human Services*

A class designed for male athletes with particular emphasis on weight training and individual techniques in football, soccer, basketball, and baseball.

**1M510 Football Techniques** (Semester, ½ credit, limit of 2 semesters credit)

*Recommendations: Grades 9-12*

*Career Pathways: Health Services, Human Services*

This class is designed for students interested in football, weight-training, cardiovascular conditioning and the history of high school athletics in Michigan. Expect an intense workout including techniques, weights and running each day. Some written work will be required.

**1PEH520 Basketball Techniques** (Semester, ½ credit)

*Recommendations: Grades 9-11*

*Career Pathways: Health Services, Human Services*

This class is designed for athletics to enhance their basketball skills and knowledge of the game. Emphasis on speed enhancement, weight training, and strategy is a major theme of the course.

## **Science**

All Milan High School students are required by the state and district to earn four years of science credit for graduation. In the 9<sup>th</sup> grade year, students are required to take biology or honors biology. During the 10<sup>th</sup> and 11<sup>th</sup> grades, students are required to take a chemistry and/or physics course. In 12<sup>th</sup> grade, students may choose an elective for the fourth science credit. Students interested in a career pathway that recommends more than the state and district requirements are encouraged to take more than one science course during their 10<sup>th</sup> -12<sup>th</sup> grade years. Additionally, students interested in the Agriscience program should begin taking the program courses (along with the state and district required courses) during the 10<sup>th</sup> grade year. The following are some sample scheduling options for students:

***Students looking to obtain four credits:***

*9<sup>th</sup> grade-biology or honors biology*

*10<sup>th</sup> grade-chemistry/honors chemistry or physics/honors physics*

*11<sup>th</sup> grade-chemistry/honors chemistry or physics/honors physics*

*12<sup>th</sup> grade-elective*

***Students looking to obtain credits beyond the state and district requirements:***

*9<sup>th</sup> grade-honors biology*

*10<sup>th</sup> grade-honors chemistry and Human Anatomy & Physiology*

*11<sup>th</sup> grade-honors physics and AP Chemistry*

*12<sup>th</sup> grade-AP Biology and AP Physics*

***Students looking to be in the Agriscience program:***

*9<sup>th</sup> grade-biology or honors biology*

*10<sup>th</sup> grade-chemistry/honors chemistry or physics/honors physics AND Agriscience elective*

*11<sup>th</sup> grade-chemistry/honors chemistry or physics/honors physics AND Agriscience elective*

*12<sup>th</sup> grade-Agriscience elective*

## **Life Science Courses**

**1SCI401/402 Biology** (Year, 1 credit)

*Recommendation: 9<sup>th</sup> grade*

The Biology course involves an in-depth analysis of biological topics that follow the Michigan Merit Curriculum. This course will predominantly cover the Essential Content Standards and will address most

Core Content Standards. (See the following link for the [High School Content Expectations](#) in Biology.) This course will address the scientific method, microscopes, biochemistry, cells, principles of water, photosynthesis and respiration, cell reproduction, protein synthesis, genetics, evolution, and ecology.

**1SCI551/552 Honors Biology** (Year, 1 credit)

*Recommendation: 9<sup>th</sup> grade, recommendation of science teacher*

The science department recommends students to have had a minimum of a B+ in Earth Science (or the student's respected eighth grade science course) and an above average MEAP score, or teacher approval. The Honors Biology course involves an in-depth analysis of biological topics that follow the Michigan Merit Curriculum. This course will predominantly cover the Core Content Standards and will address some Essential and Recommended Content Standards. (See the following link for the [High School Content Expectations](#) in Biology.) This course will address the scientific method, microscopes, biochemistry, cells, principles of water, photosynthesis and respiration, cell reproduction, protein synthesis, genetics, evolution, bacteria and viruses, and ecology.

**1SCI501/502 Human Anatomy and Physiology** (Year, 1 credit)

*Recommendation: 11<sup>th</sup> -12<sup>th</sup> grades (and highly motivated 10<sup>th</sup> grade students)*

*Career Pathways: Health Services, Natural Resources and Agriscience*

The science department recommends students to have taken a Biology course and Chemistry course (or concurrently taking a Chemistry course), or teacher approval. This course introduces the study of Human Anatomy and Physiology. Emphasis will be on the relationship between structure and function for each body system, as well as, the interactions between body parts from chemical to systematic. The role of microorganisms and disease within each system will also be explored. A two-month pig dissection is required to assist students with the exploration of the body systems. Students are expected to be self-directed and self-motivated to be successful in this course. *(For those students interested in taking Advanced Placement Biology note that it is advised that students take Anatomy & Physiology before or concurrently with Advanced Placement Biology.)*

**1SCI601/602 Advanced Placement Biology** (Year, 1 credit)

*Recommendation: 11<sup>th</sup> -12<sup>th</sup> grades (and highly motivated 10<sup>th</sup> grade students), successful completion of Biology or Honors Biology, recommendation of science teacher.*

*Career Pathway: Health Services, Natural Resources and Agriscience*

The science department recommends students to have had a minimum of a B+ in Honors Biology (or A- in Biology), minimum of a B+ in Honors Chemistry and/or Honors Physics (or A- in Chemistry and/or Physics), and an above average PLAN score; or teacher approval. *It is also advised that students take Anatomy & Physiology before or concurrently with Advanced Placement Biology.* This course is taught at a college level in terms of content and pace. AP Biology strongly emphasizes laboratory research and is designed to develop critical thinking in many areas of biological science. It is taught much differently from the Biology and Honors Biology courses in that it follows the College Board Advanced Placement Biology curriculum. Students that take the course require and will develop somewhat different skills. Among the skills that are emphasized are reading in science, experimentation, and the use of several instruments and techniques. AP Biology students are strongly encouraged, but not required to take the College Board AP Exam administered in the spring. Students test scores may earn the possibility of advanced standing or credit in college science. All test fees are paid by the student.

## **Physical Science Courses**

### **1SCI851/852 Chemistry** (Year, 1 credit)

*Recommendation: 10<sup>th</sup> grade*

The science department recommends students to have had a Biology course prior to taking Chemistry. The Chemistry course involves an in-depth analysis of chemical topics that follow the Michigan Merit Curriculum. This course will predominantly cover the Essential Content Standards and will address most Core Content Standards. (See the following link for the [High School Content Expectations](#) in Chemistry.) This course will use some math and chemical information in an inquiry-based approach in a laboratory setting. Critical thinking and problem solving skills are utilized as students explore the concepts of measurement, metrics, atomic structure, the periodic table, bonding, states of matter, solutions, equilibrium, kinetics, gases, and acid-base chemistry.

### **1SCI951/952 Honors Chemistry** (Year, 1 credit)

*Recommendation: 10<sup>th</sup> grade, recommendation of science teacher*

The science department recommends students to have had a minimum of a B in Honors Biology or an A- in Biology, or teacher approval. The Honors Chemistry course involves an in-depth analysis of chemical topics that follow the Michigan Merit Curriculum. This course will predominantly cover the Core Content Standards and will address some Essential and Recommended Content Standards. (See the following link for the [High School Content Expectations](#) in Chemistry.) This course is mathematically rigorous and chemical information is analyzed in an inquiry-based approach in a laboratory setting. Critical thinking and problem solving skills are utilized as students explore the concepts of measurement, metrics, atomic structure, the periodic table, bonding, states of matter, solutions, equilibrium, kinetics, gasses, thermodynamics, oxidation-reduction, organic, and acid-base chemistry. Students will be expected to perform a variety of lab procedures with accuracy. An accelerated math background and functional grasp of technology is also recommended for students in this course.

### **1SCI801/802 Advanced Placement Chemistry** (Year, 1 credit)

*Recommendation: 11<sup>th</sup> -12<sup>th</sup> grades (and highly motivated 10<sup>th</sup> grade students), successful completion of Chemistry or Honors Chemistry, recommendation of science teacher.*

*Career Pathway: Engineering/Manufacturing and Industrial Technology, Health Services, Natural Resources and Agriscience*

The science department recommends students to have had a minimum of a B in Honors Chemistry and B in Advanced Algebra, or teacher approval. AP Chemistry is a first-year college level chemistry course taught at the high school. This course is regulated by the [College Board](#) (for a more complete description of AP Chemistry go to [AP Chem at the College Board](#)). Students will have the opportunity to take the AP Chemistry Exam to possibly receive college credit for the course. (This allows students to take second year chemistry courses as freshman, take other courses that require chemistry as a Recommendation, or to get the necessary laboratory science credit in the first year of college out of the way so the student can take more classes in their desired areas of study.)

### **1SCI901/902 Physics** (Year, 1 credit)

*Recommendation: 11<sup>th</sup> grade*

The science department recommends students to have had a Biology course prior to taking Physics. The Physics course involves an in-depth analysis of physics topics that follow the Michigan Merit Curriculum. This course will predominantly cover the Essential Content Standards and will address most

Core Content Standards. (See the following link for the [High School Content Expectations](#) in Physics) This course looks at how and why objects move in addition to the effect of energy in the world of motion, electricity, heat, and light. This course goes into some mathematical detail. Thinking scientifically and using logical problem solving skills are points of emphasis with regards to the subject matter.

**1SCI921/922 Honors Physics** (Year, 1 credit)

*Recommendation: 10<sup>th</sup> grade, recommendation of science teacher*

The science department recommends students to have had a minimum of a B in Honors Biology or an A- in Biology or teacher approval. Also, it is recommended for students taking this course to have earned a minimum of a B+ in Algebra and Geometry. The Honors Physics course involves an in-depth analysis of physics topics that follow the Michigan Merit Curriculum. This course will predominantly cover the Core Content Standards and will address some Essential and Recommended Content Standards. (See the following link for the [High School Content Expectations](#) in Physics) This course looks at how and why objects move in addition to the effect of energy in the world of motion, electricity, heat, and light. This course goes into great mathematical detail. Thinking scientifically and using logical problem solving skills are points of emphasis with regards to the subject matter.

**1SCI911/912 Advanced Placement Physics** (Year, 1 credit)

*Recommendation: 11<sup>th</sup> -12<sup>th</sup> grades, successful completion of Physics or Honors Physics, recommendation of science teacher*

*Career Pathway: Engineering/Manufacturing and Industrial Technology, Natural Resources and Agriscience*

The science department recommends students to have had a minimum of a B in Honors Physics and B in Advanced Algebra, or teacher approval. AP Physics is a first-year college level physics course taught at the high school. This course is regulated by the [College Board](#) (for a more complete description of AP Physics go to [AP Physics at the College Board](#)). This course is designed to prepare students for the Advanced Placement Physics B exam (the Algebra based version). Students will use equations and algebra to analyze static and dynamic systems. Topics such as vectors, 1D motion, 2D motion, forces, energy momentum, electromagnetic properties, waves, and modern physics will be addressed at a fast pace.

**1SCI931/932 Integrated Science II** (Year, 1 Credit)

*Recommendation: 12<sup>th</sup> Grade*

Integrated Science II is the science course that is incorporated into the Milan Center for Innovative Studies curriculum. In the MCIS, science is learned through a project-based learning model. Life, physical, and environmental science topics are incorporated into projects that relate to the everyday world.

**Applied Physics**

Integrated Science II is the science course that is incorporated into the Milan Center for Innovative Studies curriculum. In the MCIS, science is learned through a project-based learning model. Life, physical, and environmental science topics are incorporated into projects that relate to the everyday world.

**Honors Applied Physics**

*Prerequisite- Must be concurrently enrolled with AP Research or AP Seminar in MCIS*

Integrated Science II is the science course that is incorporated into the Milan Center for Innovative Studies curriculum. In the MCIS, science is learned through a project-based learning model. Life, physical, and environmental science topics are incorporated into projects that relate to the everyday world.

## **Agriscience Courses**

### **1SCI101/102 Natural Resources** (Year, 1 credit)

*Recommendation: 9<sup>th</sup> -12<sup>th</sup> grades*

*Career Pathway: Natural Resources and Agriscience*

This is an introductory course in the study of natural resources and their management. Major natural resource topics of study include, wildlife, forestry, soil, air, water, mineral and energy sources. All aspects of resource use will be explored including production levels, conservation, use and re-use, exploitation, and recycling. Current environmental issues in our state, nation and world related to resource use will be included and explored. Students interested in careers in natural resources and conservation should consider taking this course.

### **1SCI211/212 Botany** (Year, 1 credit)

*Recommendation: 10<sup>th</sup> -12<sup>th</sup> grades*

*Career Pathway: Natural Resources and Agriscience*

An agriscience approach to the world of Botany (the study of plants). The course will focus on plant parts, function, use, classification, and specific forms of plant production. First semester will build a foundation of plant knowledge and outdoor labs. Second semester will study plant production techniques and plant reproduction. The greenhouse lab site will be a major part of second semester activities. The course will prepare students for all aspects of plant information in state testing applications and open career opportunity pathways. Practical applications in forestry, landscaping, greenhouse production, pesticides, conservation, and crop production will illustrate the need and use for plants in our society and environment.

FFA participation in Botany is mandatory and the course has been designed for those students who want a true agriscience experience. Students will be expected to participate in local, state, and national FFA contests and activities. This FFA participation will develop leadership, cooperation, career, and personal skills, which are vital in today's world.

### **1SCI121/122 Zoology** (Year, 1 credit)

*Recommendation: 10<sup>th</sup>-12<sup>th</sup> grades*

*Career Pathway: Natural Resources and Agriscience*

This class includes a complete study of wild and domesticated animals. The class will have applications in breed and species origins, systems, nutrition, genetics, disease and disease control, use, reproduction, advanced technologies, and current animal issues such as conservation and animal rights. Students will have animal labs and activities to help them understand the animal body and behaviors. The course will prepare students for animal information found in state testing applications and make students aware of career opportunities in the areas of animal science and production. Practical applications in health

issues, care, breeding systems, feeding, and evaluation of animals will show students how vital animals are for our survival.

FFA participation in Zoology is mandatory and the course has been designed for those students who want a true agriscience experience. Students will be expected to participate in local, state, and national FFA contests and activities as they occur. FFA participation will develop leadership, cooperation, career, and personal skills which are vital in today's world.

**1SCI201/202 Ecosystems Analysis** (Year, 1 credit)

*Recommendation: 11th-12<sup>th</sup> Grade*

*Career Pathway: Natural Resources and Agriscience*

A study of life forms and environmental factors that affect life within an ecosystem. Food chains, food webs, energy transfer between living organisms will be the major emphasis of class studies. Michigan ecosystems will be studied. Outdoor study, collection and identification of organisms, and determining the niche of an organism in the ecosystem will be focal points. This Agriscience class will be for students with interest in Zoology and the natural environment. Current ecological concerns will be addressed in this class. Completion of Zoology class is recommended. FFA participation is expected when opportunities arise.

## **Social Studies**

The wide variety of classes offered in Social Studies represents the needs of our society to study itself and others for pleasure, understanding, or both! Students planning on attending college should not limit themselves to the required, and those who wish to embark on years of travel or the college of lifelong learning should also enjoy the electives. Please follow the list of required subjects as you setup your high school curriculum and add in the electives to enhance your learning opportunities. ~~For the 2014-1 Academic School year:~~ Freshmen should be enrolled in World History; Sophomores US History & Geography; Juniors Civics & Economics and Seniors Government ~~and Consumer Awareness.~~

**1SOC101/102 Civics & Economics** (Year, 1 credit)

*Recommendation: 11<sup>th</sup> grade*

**Civics:** This is a semester class offered to 11<sup>th</sup> graders in order to comply with state mandated standards and benchmarks. Students will be tested on the material when they take the MME test in 11<sup>th</sup> grade. It is an introduction into citizenship, the branches of government, and the documents that have shaped the country. The class will demonstrate the importance of participating in the American Democracy.

**Economics:** This one semester course in the basic of economics will assist the student in attaining knowledge recommended to pass the state's assessment test in the junior year. It will expose students to the language, to the concepts, to the variety, and to the impact of economics on the U.S., on the global community, and on their own pursuits.

**1SOC211/212 World History & Geography** (Year, 1 credit)

*Recommendation: 9<sup>th</sup> grade*

This is the 9<sup>th</sup> grade Social Studies course. First Semester, this course begins with the study of the appearance of homosapiens on earth and follows the development of major civilizations. Civilizations included are the Egyptian, Greek, Roman, African, Russian and Chinese. The course covers the "Fall of Rome," and ends with The Central/South American Indian Civilizations. Included in the course are the Rise of Christianity, the Age of Feudalism, and Mesopotamian civilizations.



Second Semester, this course begins with the development of European nations and ends with the Post WWII years. Included are the American Revolution, the French Revolution, and the major leaders: Louis XIV, Napoleon Bonaparte, Peter the Great, and Frederick the Great. The course sets the stage for the 20<sup>th</sup> century World Wars. The course follows the rise of imperialism and ends with the major events of the 1960s.

**1SOC611/612 U.S. History & Geography** (Year, 1 credit)

*Recommendation: 10<sup>th</sup> grade.*

This is the 10<sup>th</sup> grade Social Studies Course. U. S Coming of Age: This semester covers the period from the Civil War to the 1920s. Among topics covered will be a look at the Civil War, reconstruction, the west, the rise of industry, becoming a world power, and World War I.

Modern U.S. History: This semester covers the period from 1920 to the present. The course will include the roaring 20s, the depression 30s, World War II, the Cold War, Korea, the Cuban missile crisis, Vietnam, Watergate, the space program, the era of social changes, the conservative tide, and the U.S. in today's world.

**1SOC901/902 Advanced Placement United States History**

*Recommendation: 10<sup>th</sup> grade, teacher recommendation.*

*Career Pathways: Business, Management, Marketing, and Technology and Human Services*

A.P. U.S. History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. History. The course prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials- their relevance to a given interpretive problem, reliability, and importance- and to weigh the evidence and interpretations presented in historical scholarship. A.P. U.S. History should thus develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format.

Although there is no formal Recommendations, Advanced Placement offers to provide high school students the rigors of post-secondary education; It is preferred therefore that students interested/enrolled in this course have demonstrated an academic foundation necessary to meet the challenges of a college level course.

Students enrolled in A.P. US History will have an opportunity to take the A.P. Exam administered by the College Board. The exam tests knowledge and skills included in a full-year introductory course in United States history from the first European explorations of the Americas to the present. The exam covers political institutions and behavior, public policy, social and economic change, diplomacy and international relations, and cultural and intellectual development.

**1SOC701/702 Government** (Year, 1 credit)

*Recommendation: 12<sup>th</sup> grade.*

This is the 12<sup>th</sup> grade Social Studies Course and is included in the MCIS. This course will provide students with an in-depth study of the legislative, executive, and judicial branches of our government. The electoral process, constitutional rights, and related current issues add depth to the subject area.

Emphasis is on the U.S. Constitution and its interpretation as the basis for our system of government. Macro (theoretical) and microeconomics are also covered in this course. Class content will consist of as many practical aspects of post-graduate life as can be offered in one course. It will acquaint students with the field of "consumerism" as an approach to practical economics. The topics will include comparative shopping, wise use of credit, preparation of job applications, interviews, the cost of living,

insurance, banking, contracts, saving, investing, and other topics designed to help students make the best use of their consumer resources.

### **Honors Government**

*Prerequisite- Must be concurrently enrolled with AP Research or AP Seminar in MCIS*

This is the 12<sup>th</sup> grade Social Studies Course and is included in the MCIS for those students intending to attend four year institutions and who are currently enrolled in AP Seminar or Research. This course provides a rigorous and in depth experience. This course will provide students with an in-depth study of the legislative, executive, and judicial branches of our government. The electoral process, constitutional rights, and related current issues add depth to the subject area. Emphasis is on the U.S. Constitution and its interpretation as the basis for our system of government. Macro (theoretical) and microeconomics are also covered in this course. Class content will consist of as many practical aspects of post-graduate life as can be offered in one course. It will acquaint students with the field of “consumerism” as an approach to practical economics. The topics will include comparative shopping, wise use of credit, preparation of job applications, interviews, the cost of living, insurance, banking, contracts, saving, investing, and other topics designed to help students make the best use of their consumer resources.

### **1SOC801/802 Advanced Placement Government**

*Recommendation: 11<sup>th</sup>-12<sup>th</sup> grade, recommendation of social studies teacher*

*Career Pathways: Business, Management, Marketing, and Technology and Human Services*

A.P. Government is a course that provides students an analytical approach to government and politics in the United States. With this study, students will grasp an understanding of the institutions, groups and beliefs that comprise the American political system. The study of concepts and analysis of specific examples will provide the student a profound perspective detailing American citizenship. Advanced Placement offers to provide students the rigors of post-secondary education. Interested students will find a vast array of challenges throughout the yearlong course.

A.P. Government students will be strongly encouraged, but not required, to take the College Board A.P. Exam administered in the spring, with a possibility of advanced standing or credit in college government. All test fees paid by the student.

## **South and West Washtenaw Consortium**

### **Career and Technical Education**

**Chelsea • Dexter • Manchester • Milan • Saline**

<https://www.salineschools.org/schools/swwc/>

The major purpose of the courses included in this section is to prepare the student with entry level and transferable skills and knowledge needed to obtain employment. The student’s selection of a career and technical education course in no way would prevent him or her from furthering their education beyond high school. Additional program materials are available in the guidance office or from the instructors.

The courses are full-year courses, open primarily to juniors and seniors. Enrollments are limited; therefore, it is essential that students indicate their desires when considering their schedules for the fall. Interested students must complete an application form that can be acquired from the counselor or any career and technical education instructor. This application must be returned to the guidance office at the time of scheduling in order to be considered for the program. A committee will screen all applicants; if applications exceed the openings available, acceptance will be based upon career goals, attendance record, teacher recommendation and graduation date plans. Priority will be given to seniors who will be in class the full year, juniors next, then seniors who anticipate mid-year graduation or reduced schedules. Students not electing the program by April cannot be guaranteed a slot in the program of their choice. Bus transportation is provided for morning sessions at Saline High School during MHS 2<sup>nd</sup> and 6<sup>th</sup> period classes only. Check with your counselor if transportation is a concern.

## **The Career and Technical Education Center (CTE Center)**

Located at Saline High School

The CTE Center is available to serve the needs of all students enrolled in the Career and Technical Education Programs offered by the South and West Washtenaw Consortium. The Center provides students with a centrally located facility where they can receive assistance in developing specific academic skills related to their career oriented classes, in careful career planning, and in job placement. The Center also provides students assessment services and laboratory experiences related to individual career and technical needs. The goal of the CTE Center is to help all Career and Technical Education students attain their career objectives.

It is the policy of the South & West Washtenaw Consortium not to discriminate on the basis of race, color, national origin, gender, age, disability, height, weight, religion, or marital status in any of its programs, activities or employment. Inquiries regarding this policy should be directed to Associate Superintendent of Personnel, 200 N. Ann Arbor, Saline, MI 48176

*All 2<sup>nd</sup> year students must have instructor approval to register for the course.*

### **AGRISCIENCE**

#### **Plant/Animal Science (Year-AM)**

*Recommendation: Grades 11-12*

Animal – This introductory pre-veterinary animal care course is for students exploring careers in the Natural Resources-Agriscience Career Cluster or Health Care Cluster. This class concentrates on livestock, horses, fish and companion animals. Units of study include: importance of the animal industry, classification, selection, anatomy, physiology, genetics, breeding, behavior, nutrition, health, animal judging, dog grooming, aquaculture, meat and dairy food identification. The first semester class raises 50 broiler chickens as part of the Michigan FFA Poultry Improvement Contest. Also, students have an opportunity to attend the National FFA Convention in Louisville, Kentucky in the fall. The second semester class competes in the Michigan FFA horse judging, poultry judging, meat judging and dairy foods contests at Michigan State University.

Plant – This introductory horticulture course is for students exploring careers in the Natural Resources – Agriscience Career Cluster. Units of study include plant identification, anatomy and physiology, forestry, soil conservation and land site analysis, plant propagation, controlled environment plant systems, plant chemistry, artificial lighting and design-construction of hydroponic systems. First semester students have an opportunity to attend the National FFA Convention in Louisville, Kentucky and Made for Excellence Conference at MSU. Second semester class competes in the Michigan FFA agronomy judging, soils judging, greenhouse crop judging and ecosystems judging contests at MSU. Leadership and

communication skills needed for success in this career cluster are developed through FFA involvement. Leadership and communication skills may be developed through FFA involvement in contests, cooperative projects, committee work and activities.

## **AGRISCIENCE**

### **Landscape and Turf Management (Year-PM)**

*Recommendation: Grades 11-12*

Turfgrass Science, Golf Course, Landscape Management, Design & Construction

*Recommendation: Grades 11-12, Plant Science preferred, Earth Science or Biology equivalent.*

This is an advanced plant science class that will prepare students for immediate entry into the green industry or 2/4 year college program in golf course management, commercial-sports turf management or nursery-landscape construction. Students will learn how to organize their own turf/landscape business, operate commercial landscape power equipment, survey land, design a landscape plan using paper and PRO-Landscape CAD computer program, prepare a budget, bid proposal, keep business records and construct a landscape project. Intensive skills in landscape plant identification, pest management and plant care will be developed. Students are required to complete a minimum of 4 weeks of seasonal green industry internship working for a golf course, turf maintenance or landscape business as part of their class experience. First semester students have an opportunity to attend the National FFA Convention in Louisville Kentucky and Made for Excellence Conference at MSU. The second semester class competes in the Michigan FFA nursery-landscape judging, turf management judging or ag-mechanics contests at MSU. Leadership and communication skills needed for success in the green industry may be developed through FFA involvement in contests, cooperative projects, committee work and activities.

### **Auto Technology I (Year-AM & PM)**

*Recommendation: Grades 11-12*

This is a course in which the student applies the principles and functions of components as they pertain to automotive systems. The course is divided into three major areas of study, including a light service unit, automotive electrical systems, and braking systems. Included in the light service unit are topics ranging from reference materials and micrometers to basic vehicle systems like cooling, lubrication and wheels and tires. The automotive electrical systems unit includes all aspects of automotive electrical systems from the basic battery, alternator and starter to advanced electrical diagnostics, while the braking systems unit covers all aspects of automotive braking systems, including hydraulic principles, disc and drum braking systems, and anti-lock braking systems. The laboratory portion covers approximately 70 percent of this course. The class is designed to provide the student with a relevant and realistic hands-on training for preparation for the automotive servicing field. Students should be able to obtain state mechanic certification in at least two of the test categories. NATEF certification is available. *Articulation is available with Washtenaw Community College.*

### **Auto Technology II (Year-Early Start AM)**

*Recommendation: Grades 11-12, Successful completion of Auto Technology I*

This course covers an advanced study of topics introduced in the Recommendation course, plus additional instruction in two major areas of study. The major areas of concentration are steering, suspension, wheel alignment, and an extensive unit on engine performance/driveability. The steering,

suspension, and wheel alignment unit covers all aspects of current vehicle designs, including air assist. The engine performance/driveability unit covers a vast number of topics, including electronic fuel injection, computerized engine control, exhaust gas emission testing and analysis, ignition systems, and compression and leakdown testing. State of the art diagnostic equipment will be emphasized throughout this unit. The course is exclusively designed to provide the student with relevant and realistic hands-on training for preparation for the automotive servicing field, as well as establishing a foundation for possible careers as product testing technicians, dynamometer technicians, service managers, parts managers, factory service representatives, and engineering technicians. Students should be able to obtain state mechanical certification in steering, suspensions, and engine performance after successful completion of this course. NATEF certification is available. *Articulation is available with Washtenaw Community College.*

### **Building Trades (Year-AM & PM) – Chelsea High School/On-Site**

*Recommendation: Grades 11-12*

The Building Trades program prepares a student for employment in the construction industry. There is much for the student to learn in the field, and the immense diversity of career opportunities makes this industry one of the most interesting and challenging. The Building Trades class prepares the student with entry-level skills needed for employment through the actual construction of a house. The specific areas of study include: site preparation, dry wall, masonry, finish carpentry, rough carpentry, painting and wall covering, heating, plumbing, construction techniques, wiring, insulation, management skills and employability skills. *Articulation is available with Washtenaw Community College.*

### **CAD/CAM Engineering & Design (Year- PM)**

*Recommendation: Grades 11 - 12*

This is a class in computer aided design (CAD) and computer aided machining (CAM). Automated manufacturing, rapid prototyping, tabletop manufacturing, CAD/CAM and CNC programming are industry standards that students need to know to compete in tomorrow's job market and also prepare them for college. Students considering entering the field of engineering, design, machine tool, or any aspect of manufacturing will benefit from this class. Using state of the art software (MasterCam), students will gain job skills and college level experience in CAD/CAM programming. Maximum benefits to the students occur if Machine Tool Technology is taken with this course during the student's junior or senior year. This class will give students the power to design and visualize in 3D, generate tool paths and NC-code and produce the drawn part using a variety of industrial three axis machine tools. Rapid prototyping and pre-production using CAD/CAM technology is in high demand and is considered to be an essential skill in design and engineering professions as well as many manufacturing technologies today.

### **Computer Servicing & Associated Electronics (Year-AM)**

*Recommendation: Grades 11-12 and successful completion of Algebra*

This class is designed to provide the student with a foundation in basic electronics with concentration in computer systems construction, repair, troubleshooting and upgrading. Basic electrical fundamentals will be covered including DC circuitry, reading schematic drawings, wiring and soldering. The focus of the class will be in preparing students to be computer repair technicians. Computer technicians are in high demand and are responsible for troubleshooting and repairing computers. Upgrading and total construction of PC's will be experienced in this class, following the industry standard of A+ computer repair certification standards. Students that excel will be prepared for A+ computer certification testing.

### **Co-operative Education – “Capstone Experience”**

*Recommendation: Open to seniors; must be concurrently enrolled in the related CTE class. Previous enrollment as a junior in the related class is required, with core competencies in safety and curriculum documented. Application and interview process determines acceptance.*

This program provides on-the-job training in Career & Technical (CTE) programs such as Building Trades, Business Technology, Child Care Services, Cosmetology, Health Sciences Technology, Hospitality/Food Service, Marketing, and several trade and industrial occupations. Juniors who have completed, or are currently enrolled in a related CTE class are eligible to apply each spring for the following school year. Juniors, with approval, may apply for a second semester placement during their junior year provided they have excellent references from their CTE teacher and counselor, have excellent attendance, and have documented proficiency in the core curriculum and safety, as required by state and federal laws. Applications will be processed by a committee of counselors, teachers, and administrators. Criteria for acceptance includes the student’s occupational goals, attendance and disciplinary records, attitude, and instructor recommendations. One credit for each released school period can be earned. For the first hour released, 17.5 minimum hours of work are required; 7.5 additional hours are added to the work minimum for each additional hour released from school. Students will be evaluated at least every nine weeks by the employer. They will also be required to attend weekly meetings, complete weekly assignments, and adhere to program standards and policies.

### **Cosmetology (Year-AM) Off Site at Huron Valley Beauty Academy**

*Recommendation: Grades 11-12*

This program is open only to 11<sup>th</sup> and 12<sup>th</sup> grade students who have made a serious commitment to become a professional cosmetologist. Limited space will be available for seniors who are willing to commit to a year beyond graduation to complete the program. The Cosmetology program prepares a student for employment in one of our nation’s largest personal service industries. The Cosmetology program prepares a student with the entry-level skills needed for employment in the beauty trades. Upon completion of the 1500 hours combined theory and clinical instruction, the student will be qualified to take the Michigan State Board of Cosmetology exam. Class work includes the following areas of study: Sanitation, bacteriology, cosmetology laws and rules, personal hygiene, hair shaping, hair dressing, finger weaving, hair coloring, chemical reconstruction, applied anatomy, physiology and histology of the human head, hands, nails and skin, applied chemistry as related to skin, hair and nails, manicuring, facials, salon management and employability skills. Students must purchase required uniforms and arrange their own transportation to the West Ann Arbor location. A counselor can provide further information and the required application forms.

### **Early Childhood-Careers in Education (Year-AM & PM)**

*Recommendation: Grades 11-12; successful completion of Parenting or permission of instructor*

This class is designed to introduce students to careers in early childhood education. Experience with preschoolers is gained by assisting at Pooh Corner, a licensed nursery school housed at Historic Union School. The program includes the study of social, emotional, cognitive, and physical development of children between the ages of two and one-half and five years of age, lesson planning and actual teaching. This course may be taken for one or two years. During the second year, students will be placed in local preschools, child care centers and early elementary classrooms. Students have the opportunity to earn the national Child Development Associate certificate. *Articulation is available with Washtenaw Community College.*

### **GraphX Academy (Year-AM)**

*Recommendation: Grades 11-12*

GraphX Academy provides skills and experiences for the student interested in graphic communications as a career or as background for advanced education after high school. GraphX students experience on-site visits throughout the school year to local printing companies where they are exposed to all areas of the business. This gives students the opportunity to experience the latest technology and employability skills needed to be successful in a graphic communications career. The school-to-work transition is a major focus of GraphX Academy.

### **Health Science Technology (Year-~~AM Chelsea H.S.~~—PM Saline H.S.)**

*Recommendation: Grades 11-12*

Health Sciences Technology has been designed for eleventh and twelfth grade students interested in all levels of health careers at the professional and paraprofessional levels. Areas of study include anatomy and physiology, disease process, medical ethics, communications, medical terminology, career exploration, and trends in healthcare, as well as a look at many college programs. Students will develop skills in CPR, vital signs, safety, and patient care skills that apply to multiple health fields, such as medicine, physical therapy, x-ray, nursing, lab technology, and more. Students will gain practical experiences in hospitals, long-term health facilities, and professional offices and clinics in the community. Rotations will introduce students to the real working environment of the health career being considered. Many professional schools will accept this experience as the volunteer hours required for admission. Individual students may elect to continue into a second year independent study or internship pending instructor approval and a B- average in the first year. College-bound students considering a career in the health field would benefit greatly from this course by determining their interests and abilities and experiencing first hand. Students who complete all the requirements are eligible to take the State of Michigan tests to become a Certified Nursing Assistant (CNA). *Articulation is available with Washtenaw Community College and Ferris State University.*

### **Health Science Technology Internship (Year)**

*Recommendation: Health Sciences Technology; Permission of instructor*

### **Hospitality/Culinary Arts (Year-AM)**

*Recommendation: Grades 11-12*

This course is designed to introduce students to the hospitality industry, which includes Culinary Arts, Food Service, Hotel/Motel and Travel/Tourism, with a major focus on Culinary Arts. Students will learn and apply principles of safety, sanitation, and food preparation. They will operate “The Hive”, our student-operated restaurant, as well as do catering and special projects. In addition, they will learn and practice employability skills, goal setting, and problem-solving. They will apply math and communication skills to work situations. Students may take this class as a junior, a senior, or both. Students are involved in long and short-term restaurant or hotel internships during class time. Students have the opportunity to earn a nationally recognized certificate through the National Restaurant Association with ServeSafe and ProStart programs. *Articulation available at Ferris State University, Grand Rapids Community College, Henry Ford Community College, Lake Michigan College, Michigan State University, Washtenaw Community College, West Shore Community College, The Art Institutes, Cornell University, the Culinary Institutes of America, Kendall College, New England Culinary Institutes, Johnson and Wales University, and other colleges and universities across the USA.*

### **Machine Tool Technology-Computer Integrated Manufacturing (Year-AM)**

*Recommendation: Grades 11-12*

The Machine Tool Technology program will train students to go on to become technicians in the modern computerized manufacturing industry. This class will be a good choice for the advanced drafting and pre-engineering student as well as the machinist. The class includes training in Computer Aided Drafting (CAD) and Computer Numerical Controlled (CNC) lathes and mills as well as basic machine tools such as lathes, mills, drills, and grinders. *Articulation with Washtenaw Community College and Ferris State University is available to students.*

### **Marketing I (Year-AM)**

*Recommendation: Grades 11-12*

This class meets for a full year and is open to students interested in marketing, management or entrepreneurship. In this class, students will learn vital skills necessary to be successful in a marketing career. The class focuses on employment letters, salesmanship, interviewing, merchandising, management, retailing, promotion and much, much more! Students in this class completely manage the school store, the TNT, which includes ordering, pricing, displaying and promoting products as well as conducting market surveys. Each student will be given the opportunity to manage the store as a cashier or salesperson. The students can be a part of the international association of marketing students, called DECA. Participants may compete in areas related to marketing, management and entrepreneurship at the district, state and international levels. Visit [www.salineschools.com/users/synowiec](http://www.salineschools.com/users/synowiec) for more information.

### **Marketing II: Entrepreneurship (Year-AM)**

*Recommendation: Successful completion of Marketing I*

This class provides more focus on the detailed approaches to the marketing concepts introduced in Marketing I and further focus on the written competitive events offered through DECA. Marketing II students focus on the aspects of opening and owning their own business and enhance their ability in becoming an entrepreneur. Each student will choose their own sole proprietor business idea and will leave the class with their own unique business plan. Marketing II students will join Marketing I in all the marketing and DECA opportunities. Students are also required to work in the school store, which they managed in Marketing I.

### **Metal Processing and Welding and Fabrication Technology (Year-AM)**

*Recommendation: Grades 11-12*

The Welding and Fabrication Technology course prepares students for employment in the welding and fabrication industry. Skill development in the joining processes of MIG, TIG, STICK, and OXY-ACETYLENE welding and brazing will be developed. Fabrication processes including shearing, bending, burning, and plasma-arc cutting will be taught. Basic power tool operation including drill press, grinding and finishing will be taught through the development and construction of student projects. In addition, welding metallurgy and blueprint reading will be covered. Successful completion of this course will prepare the student for entry into industry or college for advanced study. Students that excel should be prepared for the AWS welding certification test. *Articulation is available with Washtenaw Community College and Ferris State University.*

### **Visual Imaging Technology (Year-AM)**

*Recommendation: Grades 11-12*

VIT is about the design and production of media. VIT focuses on two major types of media: print media and electronic media. Print media includes such things as posters, CD covers, business cards, t-shirts,



and many other products. Electronic media includes digital video and audio, digital photography, animation, and flash applications for the web. What's common between print and electronic media can be summed up this way, it's all digital. Given the dynamic nature and fluidity of the visual imaging industry, one of the primary goals of the class is to give students a broad range of experience which encompasses both print and electronic media. VIT is a hands-on process using the tools they learn about to complete various media production projects and assignments. VIT prepares students for a career path within the visual imaging industry. Going into a college level program or going directly into a job during and after high school are viable career path options for aspiring VIT students.

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