



Milan High School Course Description Guide

2024-2025

Milan Board of Education

President
Vice President
Secretary
Treasurer
Trustee
Trustee
Trustee

Andrew Cislo
Betty Rosen-Leacher
Michelle Heikka
Tom Faro
Carrie Karvonen-Gutierrez
Sara Meray
Cassie Prior

ADMINISTRATION

Mr. Bryan Girbach, Superintendent

Mr. Ryan McMahon, Assistant Superintendent

Mr. Aaron Shinn, Principal

Mr. Chris Sandberg, Assistant Principal

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:

Superintendent 100 Big Red Drive, Milan, MI 48160 734-439-5001

TABLE OF CONTENTS

Graduation Requirements	4
High School Four Year Plan	6
College Planning Information	8
College Bound Athlete Guide	9
Guide for Determining Class Membership	10
Academic Honors	10
Policy Information	11
Career Pathways	16
Course Descriptions	
AP Capstone	17
Business	18
English Language Arts	19
Life Management Education	23
Mathematics	25
Music	28
Physical Education	30
Science	31
Social Studies	37
Technology	40
Visual Fine Art	42
World Languages	44

Graduation Requirements

Total Credits = 24

English	4 Credits
Honors English 9, American Literature, or Young Adult Literature —1 Credit	
Honors English 10, American Literature, or Young Adult Literature — 1 Credit	
AP English Language, AP Seminar, or Humanities 11 —1 Credit	
AP English Literature, English 12, or 2 English Electives—1 Credit	
Math	4 Credits*
Algebra I —1 Credit	
Geometry or Honors Geometry —1 Credit	
Algebra II or Honors Algebra II —1 Credit	
Math Elective —1 Credit	
* NOTE: One math related course must be taken during Senior Year	
Course options may be found on following page	
Science	4 Credits
Biology, Zoology, or Honors Biology —1 Credit	
Chemistry, Honors Chemistry, Physics, Honors Physics, or AP Chemistry —1 Credit	
Science Elective —2 Credits (Physics or Honors Physics recommended)	
Social Studies	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	
Physical Education & Health	.5 Credit
Health	.5 Credit
Visual, Performing, and Applied Arts*	1 Credit
* NOTE: Course options may be found on following page	
Foreign Language	2 Credits
*Note: Some or all may be earned in Middle School	
Elective Credits	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)
- Introduction to Statistics
- Physics, or Honors Physics*
- Honors Chemistry*
- Accounting
- General Business
- General Business – School Store
- Personal Finance
- CAD I or II*
- Architecture I or II*
- Intro to Engineering*
- Computer Graphic Design*
- Consortium

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

Beginning with 8th graders in 2023, all students must complete the state required personal finance content expectations as outlined by the state law, MCL 380.1278a as a part of the MMC graduation requirements.

At Milan High School, the content expectations can be met by taking any one of the following courses- Economics, Government, AP Government, or Personal Finance. In addition to the course credit, students will receive 1/2 credit for completion of the state required personal finance content expectations.

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:

- Architecture I/II*
- Graphic Design I/II*
- CAD I/CAD II*
- Internet & Design*
- Band/Choir
- Art I/Art II and beyond
- Pottery I/II and beyond
- Yearbook*
- Video/Film Television I; Video/Film Television II*
- Consortium

*These courses can only count for VPAA-related credit **IF** they are not used as English or Math credit for the Michigan Merit Curriculum (MMC).

For more information visit:

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.

9th Grade	
Classes to Take:	Opportunities to Take Advantage Of:
ENGLISH: Young Adult Literature, American Literature, 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 I and/or Geometry	<input type="checkbox"/> Job Shadow
SCIENCE: Biology, Zoology, or Honors Biology	<input type="checkbox"/> Community Service
ELECTIVES: Spanish 1 Physical Education And Health	*Assessment Days – PSAT 9 (Fall and Spring)

10th Grade	
Classes to Take:	Opportunities to Take Advantage Of:
ENGLISH: Young Adult Literature, American Literature, 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 Algebra II	<input type="checkbox"/> Job Shadow/Community Service
SCIENCE: Chemistry or Honors Chemistry	<input type="checkbox"/> Prepare for Dual Enrollment
ELECTIVES: Spanish 2 Assorted	*Assessment Days – PSAT 10/NMSQT

11th Grade	
Classes to Take:	Opportunities to Take Advantage Of:
ENGLISH: Humanities, A.P. Seminar, or A.P. Language & Composition	<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: Algebra II, Introduction to Statistics, or Pre-Calculus	<input type="checkbox"/> College Search/Visits
SCIENCE: Physics or A.P. Biology	<input type="checkbox"/> Dual Enrollment and/or online courses
ELECTIVES: Assorted	*Assessment Days – PSAT 10/NMSQT and SAT

12th Grade	
Classes to Take:	Opportunities to Take Advantage Of:
ENGLISH: English 12 or A.P. Literature & Composition	<input type="checkbox"/> Individual Consultation with School Counselor <input type="checkbox"/> Update Web Based EDP
SOCIAL STUDIES: Government or A.P. Government	<input type="checkbox"/> Senior Audit
MATHEMATICS: Pre-Calculus, A.P. Calculus, Introduction to Statistics and/or A.P. Statistics	<input type="checkbox"/> Attend Financial Aid Night / Apply for Scholarships <input type="checkbox"/> Career Exploration, Senior Project & Internship
SCIENCE: A.P. Biology, Anatomy and Physiology, Zoology, Botany, Natural Resources, Agricultural Mechanics, or FFA Leadership	<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

College Planning

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 31st
- ✓ 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

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 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

Summa Cum Laude—Graduating seniors who achieve a 3.9 cumulative GPA or higher at the end of the 7th 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 7th 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 7th 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 7th semester, graduate with Honors signified by a silver cord.

Schedule Requests and Changes

During the second semester, each student completes a paper Course Selection Worksheet. While students may look at and select classes in PowerSchool during the request window, final requests must be in ink and signed by a parent or guardian. All students request four core and two elective courses, along with two alternates.

The counseling department meets with students one-on-one to confirm selections. If a student does not have the Course Selection Worksheet completed and signed, counselors will not be able to update student requests.

If students would like to make adjustments to their schedule, they must complete a paper Student Schedule Change Request Form and turn it in with a parent/guardian signature. Forms are available in the Counseling Office. Counselors do not make changes by email or phone. Schedule changes will be approved based on availability and are not guaranteed.

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 Course Selection Worksheet signed by a parent or guardian.

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

Schedule change requests for any reason other than academic misplacement must go through the building administration and are not guaranteed. Student schedules are set at the building level and not built per student.

Schedule Options

Dual Enrollment

To participate in the Dual Enrollment program and receive tuition reimbursement from Milan Area Schools students must complete the requirements below:

- Students must attend the dual enrollment meeting or reach out to their counselor within thirty days of the meeting
- Students must apply and complete all registration requirements including placement testing in order to register for a class
- Students must send the dual enrollment coordinator their dual enrollment schedule and forms required by Milan Area Schools

All steps must be completed by the deadline provided at the Dual Enrollment meeting.

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 a specific career goal. A course subject cannot be a 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 Milan High School, Michigan Virtual High School or GenNet. These 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 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. 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. To be eligible for grade recovery students must have earned a failing grade with 50% or higher. 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.

South and West Washtenaw Consortium: Career and Technical Education:

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

The purpose of the courses included in this section is to prepare students 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. The courses are full-year courses, open to juniors and seniors. Enrollments are limited. Interested students must complete an application which may be found on the SWWC website. This application must be submitted by the deadline 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, and teacher recommendation. More program information is available on the SWWC website. The following courses are available to Milan High School students:

Autotechnology I

Autotechnology II

Building Trades

Business Management

Careers in Education

Computer Aided Design

Computer Integrated Manufacturing

Computer Servicing/Industrial

Cosmetology

Culinary Arts

Entrepreneurship, Business & Accounting

Exercise Science & Sports Medicine

Health Science

Marketing

Modern Web Development

Video News Production

Visual Imaging

Welding & Fabrication

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 to test-out any semester curricula offered 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 15th
- Departments must have "test-out" exams/portfolio requirements prepared by May 15th
- 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 8th grade) can waive the May 15th request date

December/January "Testing Out"

- Students must make a request to the counselor to test out by December 15th
- Departments must have "test out" exams/portfolio requirements prepared by December 15th
- Administration of test/submission of portfolio pieces to be coordinated based on requirements and prior to the start of 2nd semester
- Evaluation of materials will be by the end of the 1st week of 2nd 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. 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 Chemistry, AP Statistics, AP Biology, AP U.S. Government & Politics, AP U.S. History, AP English Language & Composition, AP English Literature & Composition, AP Seminar, AP Research, AP Physics

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 School 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. School 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 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.

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 comprises 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><u>AP Seminar (year, 1 credit)</u> Prerequisite: Must be in 10th or 11th grade</p>	<p><u>AP Research (year, 1 credit)</u> Prerequisite: AP Seminar, 11th or 12th grade</p>
<p>This foundational course 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 a deep understanding of complex issues as they make connections between these issues and their own lives.</p> <p>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.</p>	<p>This course 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>

Business

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.

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 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.

English

Four credits of English are the minimum requirement for graduation.

1ENG115: American Literature: 1600-1870 (Semester, 0.5 credit)

Recommendation: None, fulfills 9th or 10th grade English requirement

This is a semester-long course that focuses on Early American Literature. The literature study will focus on American authors including Patrick Henry, Henry David Thoreau, Walt Whitman, Emily Dickinson, Frederick Douglass, and Abraham Lincoln.

1ENG116: American Literature: 1870-Present (Semester, 0.5 credit)

Recommendation: None, fulfills 9th or 10th grade English requirement

This is a semester-long course that focuses on Contemporary American Literature. The literature study will focus on American authors including John Steinbeck, Lorraine Hansberry, Langston Hughes, Kate Chopin, Mark Twain, Sherman Alexie and other contemporary authors of student choice.

1ENG231: Young Adult Literature A: Genre Study (Semester, 0.5 credit)

Recommendation: None, fulfills 9th or 10th grade English requirement

This is a semester-long course that focuses on young adult literature, vocabulary, composition, and grammar. The literature study will consist of an investigation of a variety of different genres such as mystery, science fiction, realistic fiction, and non-fiction. This course will include student choice in novels in addition to traditional whole-class literature studies.

1ENG232: Young Adult Literature B: Thematic Analysis (Semester, 0.5 credit)

Recommendation: None, fulfills 9th or 10th grade English requirement

This is a semester-long course that focuses on young adult literature, vocabulary, composition, and grammar. This semester's literature study will consist of an investigation and analysis of themes within varying lengths of texts. Students will read a variety of novels and short stories of various themes and work to draw connections, have conversations, around the themes they are studying. In addition to whole-class novels, this class will also incorporate independent choice reading.

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

Recommendation: English teacher recommendation; fulfills 9th 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.

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

Recommendation: Successful completion of the 9th 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.

1ENG135 Humanities 11: 1940-1970 (Semester, 0.5 credit)

Recommendation: 11th Grade; fulfills 11th grade English requirement

This semester-long course will build on the skills built in the 9th and 10th grade English offerings. Special attention will be given to grammar, vocabulary, and writing. There will be a focus on combining literature read with historical and cultural information from the time period of the writing or setting of the pieces of literature. Students will consider how historical events, culture, and art contribute to the works of literature studied. Literature in this course will either be set or written between 1940 and 1970.

1ENG136 Humanities11: 1970-Present (Semester, 0.5 credit)

Recommendation: 11th Grade; fulfills 11th grade English requirement

This course will build on the skills built in the 9th and 10th grade English offerings. Special attention will be given to grammar, vocabulary, and writing. There will be a focus on combining literature read with historical and cultural information from the time period of the writing or setting of the pieces of literature. Students will consider how historical events, culture, and art contribute to the works of literature studied. Literature in this course will either be set or written in the 1970s and later.

1ENG151/152 English 12

Recommendation: Successful completion of English 9, English 10, Humanities 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.

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

Recommendation: Successful completion of English 10, or Humanities 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: Have successfully passed English 10 or Humanities 11 and have English instructor 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.

1ENG241: Mythology A: Greek and Roman Myths (Semester, 0.5 credit)

Recommendation: Available for 11th and 12th grade students.

This English elective course will introduce students to some of the principal myths of ancient Greece and Rome, to the main places and characters involved, to some of the ways in which myth functioned in real life in ancient Greece, and the ways it functions in human societies in general. This course will focus on the myths of ancient Greece and Rome as a way of exploring the nature of myth and the function it plays for individuals, societies, and nations. We will also pay some attention to the way the Greeks and Romans themselves understood their own myths.

1ENG242: Mythology B: World Myths (Semester, 0.5 credit)

Recommendation: Available for 11th and 12th grade students.

This English elective course will introduce students to myths from around the world. Students will study these cultural stories, compare them to recognize similarities between cultures, and analyze them to gain a deeper understanding of what these fictional stories reveal about the cultures from which they come.

1ENG281 Journalism A (Semester, ½ credit)

Recommendation: Available for 11th and 12th grade students.

This English course elective focuses on enhancing students' reporting, interviewing and information gathering skills specifically related to the modern sports landscape. The goal of the course is to combine students' passion for sports and their writing skills, specifically tailoring them to the sports each student is most interested in covering. Students will be required to attend athletic events outside of school hours.

1ENG282 Journalism B (Semester, ½ credit)

Recommendation: Available for 11th and 12th grade students.

This English course elective focuses on enhancing students' reporting, interviewing and information gathering skills specifically related to the modern sports landscape. The goal of the course is to combine students' passion for sports and their writing skills, specifically tailoring them to the sports each student is most interested in covering. Students will be required to attend athletic events outside of school hours.

1ENG100 Speech (Semester, ½ credit)

Recommendation: Available for 9th - 12th 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.

1ENG291/292 Yearbook (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.

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

Recommendation: Must be in 11th or 12th grade

Career Pathways: Arts and Communication

Using video production techniques and equipment, students will learn how to plan, create & edit visual media for various audiences and purposes. Emphasis will be on the use of voice, production strategies, post-production techniques to match the goal of the piece. Students will work on both individual and team projects throughout the course with a focus on time management, communication, and collaboration. Students will also work with various school organizations to create advertisements and informational pieces. Lastly, students will create pieces that inform the high school community about current events, upcoming events, and more.

1ENG371 Video Film/Television II (Semester, ½ credit)

Recommendation: Passed Video Film/Television I (with a B or better) and have instructor permission

Career Pathways: Arts and Communication

Students will build on the subject matter and experiences from the first semester. Video Film/Television II students will take on leadership roles when working with others and working towards a common project or goal. In addition, students will continue to advance their skills using more advanced editing software, and assisting in planning content for dispersion to the high school community. Students may also assist in producing content for local organizations & clubs.

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.

1ELE221/222 Leadership (Year, 1 credit)

Recommendation: 10th—12th Grades

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

Career Pathways: Education, Health Services, Human Services

Leadership is a class designed for students to interact and work with students with special needs. This class is based off of the S.N.A.P. program which stands for Students Needing Accepting Peers. Students will be paired in groups with a student to work with for the semester. Students will be challenged to engage students of all ability levels through pre-planned activities. In this unique class, you'll have the chance to: collaborate on community projects, plan and go on fieldtrips, and develop new skills to promote acceptance of all individuals. Leadership class is an exciting space to have fun while learning with a diverse group of students. In this class you'll make a big difference.

Mathematics

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

1MTH09911/921 Principles of Algebra (Year, 1 credit)

Recommendation: Teacher recommendation from 8th grade.

This course is designed to explore more real-world applications of algebra and can be considered as accessible to all levels of math students while still meeting the algebra credit requirement.

1MTH101/102 Algebra I (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 of Algebra I 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, transformations, area and volume are covered.

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

Recommendation: Successful completion of Algebra I 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, transformations, area and volume, and foundation of trigonometry concepts are covered.

1MTH201/202 Algebra II (Year, 1 credit)

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

Algebra II 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-up math courses.

1MTH203/204 Honors Algebra II (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 Algebra II 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-up math courses.

1MTH401/402 Introduction to Statistics (Year, 1 credit)

Recommendation: Successful completion of Honors Geometry with an A or B, recommendation of math teacher and NWEA/Mstep/PSAT scores.

This course is an introductory course to statistics designed for students with no stats experience. Students must have already taken Algebra II or be taking Algebra II at the same time. We will cover approximately the first half of a college Stats course or AP Statistics over the course of the full year. Topics include organizing and analyzing data, designing and interpreting studies, linear regression, normal distributions, probability, and random variables. Students will also gain experience with Google Sheets.

1TCH281/282 Personal Finance (Year, 1 Credit)

Recommendation: 11th or 12th 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.

1MTH601/602 Precalculus and Discrete Mathematics (Year, 1 credit)

Recommendation: Successful completion of Algebra II and recommendation of math teacher.

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

This course integrates the mathematics needed 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: 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 principles 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: 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 Concert Band (Year, 1 credit)

Recommendation: 9-12 grade students

Career Pathways: All Careers, Arts and Communication

The High School Band is designed to accommodate most high school band members. 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. In addition, group members perform at all home football games and in two local parades. Band members also have the opportunity to participate in solo and ensemble competitions and to join the Wind Ensemble for band festival. Leadership opportunities in band happen throughout the year and might include extracurricular ensembles or participation in Tri-M, a music National Honor Society.

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

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

Career Pathways: All Careers, 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. Leadership opportunities in band happen throughout the year and might include extracurricular ensembles or participation in Tri-M, a music National Honor Society.

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: grade level is not a factor in determining placement.

Wind Ensemble Instrumentation

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

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

Recommendation. Course instructor approval.

Career Pathways: Arts and Communication, Sciences (Music Theory is the “Science” of Music)

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. Additional instruction in jazz theory, music history (jazz/classical/popular) is also provided in conjunction with basic music composition techniques. Course approval by the instructor is required and students must be prepared to communicate regularly with Mrs. Upton.

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

Recommendation: Open to all students who want to sing in grades 9-12.

No previous experience is required.

Career Pathways: All careers, Arts and Communication

Concert Choir is open to students who want to sing (no audition requirement) in grades 9-12. This course is a performing ensemble and an academic class. Choir curriculum is designed to develop vocal technique, performing skills, music reading and music history knowledge. Concert choir performs several times each school year including school concerts, honor choir, solo ensemble (for soloists who are studying with a private teacher) and choral festival activities through the Michigan School Vocal Music Association. Students with questions about Concert choir should contact Mrs. Powell:

powells@milanareaschools.org

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

Recommendation: Interview/audition with teacher to demonstrate ability. Students who are interested in qualifying for Chamber Choir should contact Mrs. Powell: powells@milanareaschools.org

Career Pathways: All careers, Arts and Communication

Chamber choir is available to select singers grades 10-12. Chamber Choir singers are ready for an advanced vocal ensemble performance opportunity by demonstrating appropriate vocal technique and musical skills. Choir curriculum is designed to develop vocal technique, performing skills, music reading and music history/humanities knowledge. Chamber Choir performs several times each school year including school concerts and honor choir, solo/ensemble festival and choral festival activities through the Michigan School Vocal Music Association. Attendance at well planned events outside of the school day is required. Director placement/director permission to be a part of the Chamber Choir. Students who are interested in qualifying for Chamber Choir should contact Mrs. Powell:

powells@milanareaschools.org

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: 9th and 10th grade 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 prerequisite to all other P.E. Courses.

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

Recommendations: 9th-12th grade students who have successfully completed 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.

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.

1PEH403 Individual Skills Tech (Semester, ½ credit)

Recommendations: 9th-12th grade students who have successfully completed F.A.S.S.T. Fitness I; participation in a sport recommended.

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

Science

All Milan High School students are required by the state and district to earn four years of science credit for graduation. In the 9th grade year, students are required to take biology or honors biology. During the 10th and 11th grades, students are required to take a chemistry and/or physics course. In 12th 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 10th -12th 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 10th grade year. The following are some sample scheduling options for students:

Students looking to obtain four credits:

9th grade-biology or honors biology

10th grade-chemistry/honors chemistry or physics/honors physics

11th grade-chemistry/honors chemistry or physics/honors physics

12th grade-elective

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

9th grade-honors biology

10th grade-honors chemistry and Human Anatomy & Physiology

11th grade-honors physics and AP Chemistry

12th grade-AP Biology and AP Physics

Students looking to be in the Agriscience program:

9th grade-biology or honors biology AND Zoology elective

10th grade-chemistry/honors chemistry AND Botany elective

11th grade-physics/honors physics or Natural Resources, Agricultural Mechanics or FFA Leadership

12th grade-Natural Resources, Agricultural Mechanics or FFA Leadership

Life Science Courses

1SCI401/402 Biology (Year, 1 credit)

Recommendation: 9th 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: 9th 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: 11th -12th grades (and highly motivated 10th 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: 11th -12th grades (and highly motivated 10th 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: 10th 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, gasses, and acid-base chemistry.

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

Recommendation: 10th 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: 11th -12th grades (and highly motivated 10th 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 Algebra II, 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: 11th 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: 10th 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 I 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: 11th -12th 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 Algebra II, 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.

Agriscience Courses

1SCI121/122 Zoology (Year, 1 credit)

Recommendation: 9th-12th grades

Career Pathway: Natural Resources and Agriscience

This course includes a complete study of wild and domesticated animals. Zoology is the first class in the agriculture pathway. Students in Zoology will learn about safety, animal anatomy, domestic animal production, genetics, reproduction, animal evaluation and handling, and animal health and nutrition in a hands-on learning environment. Students will have labs and activities to help them understand the animal bodies and behaviors. For five weeks in the fall, we will raise meat chickens in our school greenhouse. This 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.

Zoology students are also FFA members, but their level of participation in this organization is optional. Students will have the opportunity 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.

1SCI211/212 Botany (Year, 1 credit)

Recommendation: 10th-12th grades, completion of Zoology

Career Pathway: Natural Resources and Agriscience

This course covers many broad topics in the world of plant science. Botany is the second course in the agriculture pathway and is intended for students who have already passed both semesters of Zoology. The course will focus on soil science, plant nutrition, plant anatomy and physiology, plant culture and propagation, greenhouse design and management, landscape design, and floriculture, and crop science. The school greenhouse will be a major part of second semester activities as students will spend many weeks planting and caring for flowers and vegetables that will be sold in our spring plant sale. 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.

Botany students are also FFA members, but their level of participation in this organization is optional. Students will have the opportunity 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.

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

Recommendation: 11th -12th grades, completion of Zoology and Botany

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. Students will also learn about nutrient cycling and management, environmental issues and policies, sustainable farming systems, and ecosystem management. Hands-on learning experiences in this course include raising salmon from eggs to release in the spring, eradicating invasive plants around the school, and maintaining birdhouses for local bluebird populations. Students interested in careers in natural resources and conservation should consider taking this course.

Natural Resources students are also FFA members, but their level of participation in this organization is optional. Students will have the opportunity 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.

1ELE601/602 FFA Leadership (Year, 1 credit)

Recommendation: 11th -12th grades, completion of Zoology and Botany, teacher recommendation.

Career Pathway: Natural Resources and Agriscience

This course covers the basics of leadership styles, theories, and themes. Students will learn about different leadership and employability skills to assist them in obtaining a career or preparing for college. Students will also help plan and conduct the Milan FFA chapter activities throughout the year.

Leadership students are also FFA members, and will be expected to participate in local, state, and national FFA events and activities as they occur. FFA participation will develop leadership, cooperation, career, and personal skills which are vital in today's world.

1SCI241/242 Agricultural Mechanics (Year, 1 credit)

Recommendation: 11th-12th grades, completion of Zoology and Botany, teacher recommendation.

Career Pathway: Natural Resources and Agriscience

Agricultural Mechanics is a full year course open to agriscience program completers (students who have passed Zoology A and B and Botany A and B). This course will include hands-on learning and instruction on topics such as shop safety, tool selection and usage, engine repair and maintenance, and equipment restoration and maintenance.

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 set up your high school curriculum and add in the electives to enhance your learning opportunities. Freshmen should be enrolled in World History; Sophomores US History & Geography; Juniors Civics & Economics and Senior Government.

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

Recommendation: 9th grade

This is the 9th 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 20th 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: 10th grade.

This is the 10th 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 -12th 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 are no formal Recommendations, Advanced Placement provides 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.

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

Recommendation: 11th grade

Civics: This is a one semester class offered to 11th 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 11th 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 American Democracy.

Economics: This is a one semester course in the basics of economics that 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.

1SOC710/711 Government and Consumer Economics (Year, 1 credit)

Recommendation: 12th grade

The **Government** side of this course emphasizes the importance of becoming an active citizen in our American democratic system. To meet this challenge students will engage in one or more of the following activities: attend two government meetings, participate in the C-SPAN investigative journalism project, and/or campaign for a candidate seeking elective office. In addition to traditional government units, students will also study and discuss current issues and public policy questions facing our country in a safe, evidence-based discussion format. The **Consumer Economics** side of the course takes a practical approach to economics and personal finance. Using simulations and interactive EverFi learning modules, students will learn about careers and earning income, financing higher education, money and banking, budgeting, building and using credit, insurance, investing, and completing their tax returns. The course will address the college application process, FAFSA, opportunities in the trades and apprenticeships, scholarship opportunities and competitions, and career planning. As evidence of this learning, all students will make a post-high school plan unique to their individual goals and learning needs.

1SOC801/802 Advanced Placement Government (Year, 1 Credit)

Recommendation: 11th-12th 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.

Technology

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.

1VPA410 Computer Graphic Design (Semester, ½ credit)

Recommendations: All students.

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

Students will learn basic graphic design while using the program GIMP. They will create individual projects ranging from free hand mouse drawing, recreating pictures off the internet, photoshop effects like cutting out pictures and placing them on a different picture, and learning most of the features in GIMP to create many different photo effects. Project layouts, ad layouts, packaging design are also topics in this course. This is a hands-on class.

1VPA411 Computer Graphic Design II (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

Students will advance their skills in the program GIMP. They will learn animation and creating gif files, create business cards and light boards for the school, create illusion projects, and create many types of ads and packages. They also start to learn the program Blender and create 3D solid modeling objects from scratch and put some of them into animation.

1TCH200 Computer Aided Design (CAD) I (Semester, ½ credit)

Recommendations: No prerequisites

Career Pathways: Engineering/Manufacturing and Industrial Technology

Anything that has ever been manufactured has been drawn first. Students learn how to read a ruler and complete pencil drawings that show 1 view, 3 views, and Isometric drawings the first 7 weeks. Then we move to a CAD software the rest of the semester creating solid model figures and start using 3D printers to create what we draw.

1TCH210 Computer Aided Design (CAD) II (Semester, ½ credit)

Recommendations: Completed CAD I

Career Pathways: Engineering/Manufacturing and Industrial Technology

CAD II is an extension of CAD 1 that continues using the same CAD software program. Students will learn how to do Auxiliary and Section views as well as learning tolerances in order to 3D print many different projects. We create Die casting molds and 3d print them to melt wax to put into them to create actual parts that students make. Students also come up with a project to 3d print, market, and sell.

1TCH215 Computer Aided Design (CAD) III (Semester, ½ credit)

Recommendations: Completed CAD II

Career Pathways: Engineering/Manufacturing and Industrial Technology

CAD III is an independent study class where the students come up with a project or multiple projects they want to design and 3D print.

1TCH401/402 Introduction to Engineering Design (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

Visual Fine Art

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

Recommendations: An interest in fine art

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. 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: An interest in working with clay everyday while at school

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.

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 the skills learned in Spanish IV. We will work to expand students' vocabulary base and grammar understanding. 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.