## WILLIAMSTON HIGH SCHOOL

## CURRICULUM GUIDE

## 2023-2024



Williamston High School
3939 Vanneter Road
Williamston, MI 48895
517-655-2142
www.gowcs.net

The Board of Education does not discriminate on the basis of religion, race, color, national origin, sex, disability or age in its programs, activities, or employment. Further, it is the policy of this District to provide an equal opportunity for all students regardless of gender, religion, race, color, national origin or ancestry, age, disability, sexual orientation, marital status, place of residence with the boundaries of the District, social or economic status, and/or any other legally protected characteristic, to learn through the curriculum offered in this District.

Any questions or concerns regarding compliance with this policy may be directed to: Superintendent, Williamston Community Schools, 418 Highland St., Williamston, MI 48895 or (517) 655-4361.

## TABLE OF CONTENTS

## LETTER OF INTRODUCTION 2

GRADUATION REQUIREMENTS ..... 3
SCHEDULING AND SPECIAL PROGRAMS INFORMATION ..... 4
BUSINESS AND TECHNOLOGY ..... 9
ENGLISH ..... 12
ENGLISH ELECTIVES ..... 13
HEALTH ..... 15
MATH ..... 16
MATH ELECTIVES ..... 17
SENIOR MATH ELECTIVES ..... 18
MATH AND SCIENCE ACADEMY ..... 19
PHYSICAL EDUCATION ..... 22
SCIENCE ..... 24
SCIENCE ELECTIVES ..... 25
SOCIAL STUDIES ..... 27
SOCIAL STUDIES ELECTIVES ..... 27
SPECIAL EDUCATION ..... 30
VISUAL, PERFORMING AND APPLIED ARTS (VPAA) ..... 32
VISUAL ARTS ..... 32
PERFORMING ARTS ..... 33
APPLIED ARTS ..... 34
WORLD LANGUAGES ..... 36

## Dear Parents and Students:

Planning a high school program of study is an important task that takes time and discussion between parent, student and school personnel. The information in this booklet will aid you in making decisions regarding career choices and goals.

We urge you to read carefully the material contained within these pages. When selecting courses, keep in mind your career aspirations and what you plan to do after high school. Thoughtful planning is a necessary ingredient at this point in your life if you want to ensure you have a wealth of opportunities and options available to you after high school.

It is highly recommended that students refer to their four-year plans developed as a part of their EDP (Educational Development Plan). While goals and plans change, it is important to remain focused on what you want to accomplish in your four years of high school.

Some information about scheduling that is necessary to understand in order to prevent confusion and frustration:

- Student choice must drive the master schedule development. Obviously, we cannot offer courses where there is not enough student interest, but to the greatest extent possible, we will offer the courses students choose.
- Required courses must be appropriately staffed. WHS is no different than most Michigan high schools in that we can only provide classes for which we have faculty and currently we are facing the same budget constraints as other Michigan schools.
- Students must put thought, time and energy into their course selections. However, students wishing to request a schedule change may do so at "Drops \& Adds" before the start of each semester.
- We will utilize a system of scheduling that has seniors scheduled first, then juniors, sophomores, and finally freshmen. Additionally, we will flip the alphabet yearly, so that over the course of four years students "average out" in terms of scheduling priority.
- Parents and students must view high school courses in the framework of a four-year plan. Over the course of four years, students will get the courses they need, just not always in the timeframe they might prefer.

Please provide us with any feedback regarding this course offering guide. We continue to try and make our information concise, understandable, and meaningful. As always, feel free to contact the guidance counselors or main office with any suggestions or questions.

Graduation Requirements

|  | Williamston High School Graduation Requirements | College Prep <br> Curriculum <br> Mandated by the <br> President's Council of State Universities of Michigan | NCAA Core <br> Curriculum Division 1* |
| :---: | :---: | :---: | :---: |
| Total Credits | 22 Credits |  |  |
| English (4 credits) | $>$ English 9 <br> $>$ English 10 <br> $>$ English 11 <br> $>$ English 12 | 4 years (emphasis on reading, writing, thinking \& speaking skills) | 4 years |
| Mathematics (4 credits) | $>$ Geometry <br> $>$ Algebra I <br> $>$ Algebra II <br> $>4^{\text {th }}$ Year Math class | 4 years (through Algebra II) | 3 years, Geometry or higher |
| Science <br> (3 credits) | $>$ Physics of Earth \& Space <br> $>$ Life on Earth <br> $>$ Chemistry in Earth | 2 years (one biological, one physical) 3 years strongly recommended | 2 years including one lab course |
| Physical Education (. 5 credit) | One semester Physical Education |  |  |
| Health (. 5 credit) | One semester Health |  |  |
| Social Studies (3 credits) | $>$ US History <br> $>$ World History <br> $>$ Economics/Civics | 3 years (1 year World <br> History and 1 year US <br> History strongly <br> recommended) | 2 years |
| Computer Education (. 5 credits) |  | 1 year strongly recommended |  |
| Visual, Performing and Applied Arts (1 credit) | See curriculum guide for courses fulfilling the VPAA credit |  |  |
| World Language (2 credits) | $>$ Spanish <br> $>$ Other language (MVHS) <br> $>$ Formal coursework Grades K-12 (1 credit) and completion of a Department approved formal CTE program; or an additional visual, performing, and applied arts credit (1 credit) | 3 years in one language strongly recommended |  |
| Electives | 4 credits |  | 1 year additional <br> English, Math, or <br> Science; 4 years of additional courses from above |

## SCHEDULING AND SPECIAL PROGRAMS INFORMATION

All students must be fully enrolled and take six (6) credits at Williamston High School each year. One-half $(1 / 2)$ credit is equivalent to successful completion of a class which meets five (5) periods a week for a complete semester. To receive credit for a selected course, a student must complete the full length of the course as stipulated in the program of studies.

- One semester $=$ one-half $(1 / 2)$ credit
- Two semesters = one (1) credit

Each student makes course selections for the following year early in the second semester.
Counselors distribute scheduling materials to students at school and discuss the scheduling process.

## Advanced Placement (AP) Courses (Two semesters)

Advanced Placement (AP) is a program of college-level courses and exams that gives students the opportunity to get ahead by earning advanced placement and/or credit at college while they are still in high school. WHS offers a number of AP classes including Art, Biology, Calculus, Chemistry, Computer Science Principles, English Language, English Literature, Macro-economics, Micro-economics, Physics C, Psychology, Spanish, Statistics, United States Government, United States History, and World History. Students may also take other AP courses online through Michigan Virtual High School. Colleges and universities may award credit if the student receives a qualifying score on the national test (approximately 3 hours in length) given each spring (students/families pay the test fee).

## Academic Overtime (AOT)

AOT is a school-wide Tier 1 academic enrichment and support period of 30 minutes between 3rd and 4th hours on Thursdays of most school weeks. AOT provides students with additional access to their teachers for extra assistance, to retake or make up missed work/tests, or pursue quiet study.

## Concurrent Enrollment (Ferris State University)

Concurrent Enrollment courses are actual Ferris State University courses taught at a high school during the normal school day. Students are registered, assessed, and receive grades on a college transcript in the same manner as students in the same classes on the Ferris campus.

Only students who meet course prerequisites will be allowed to register for Concurrent Enrollment credit.

## Cooperative Highly Accelerated Math Program (CHAMP and CHAMP Plus) (Two semesters)

CHAMP, a highly accelerated mathematics program is available to exceptional math students. For more information, see the MSU Gifted and Talented website at www.gifted.msu.edu.

## Dual Enrollment

The State School Aid Act contains a provision that directs school districts to assist students in paying tuition and fees for courses at Michigan public or private colleges or universities, if all of the following conditions are met:

1. Students in grades 10,11 or grade 12 who have taken the PSAT or PLAN and have made state-approved scores.
2. $9^{\text {th }}$ graders with exceptional needs beyond the offered curriculum must provide a written parental request for dual enrollment and meet with a counselor to show evidence of post-secondary course alignment to his or her educational development plan. The student must also pass any aptitude tests required by the post-secondary institution that correspond to the course(s) requested by the student.
3. Students must be enrolled in both the school district and a post-secondary institution during the local school district's regular academic year and must be enrolled in at least one high school class.
4. Students must enroll in college courses not offered by the district. An exception to this could occur if the Administration determines that a scheduling conflict exists which is beyond the student's control. Students are limited to no more than 10 dual enrollment courses.
5. The college courses cannot be a hobby, craft, or recreation course, or in the subject areas of physical education, fine arts, or religion.
6. Eligible charges are tuition and mandatory course fees, material fees, and registration fees but do not include transportation costs, parking fees, books, or activity fees.

School districts are required to pay the lesser of (a) the actual charge for tuition, mandatory course fee, materials fees, and registration fees; or (b) the state portion of the student's foundation allowance, adjusted to the proportion of the school year that student attends the post-secondary institution.

More information may obtain information concerning procedures and guidelines in the WHS Counseling Office.

## Guided Study Hour

The guided study hour provides students an opportunity to work on assignments for their other classes and/or take an online Michigan Virtual class (21f). Guided study hour is taught by a certified teacher and consists of short instruction, followed by monitored individual study.

1. Prompt and regular attendance will be required. The WHS attendance policy shall be in place for Guided Study as it would for any other class (see the WHS Student Handbook for attendance policy).
2. No credit is earned in Guided Study.
3. Students wishing to earn credit must take an online Michigan Virtual class during the hour (see "Michigan Virtual" in the WHS Curriculum Guide for specific information).
4. Students are expected to work on coursework from their other classes or Michigan Virtual (if applicable) during the guided study hour. Students are not to be on their phone, sleep, etc. WHS Student Handbook expectations are in place for Guided Study as they would be for any other class.

## Independent Study

Independent Study is a self-initiated school-based program. The primary purpose of Independent Study is for students to experience personal growth and enrichment in a given area of academic interest not available in the present curriculum. An Independent Study may replace a class but must be taken as a part of a regular course schedule. It is NOT intended to be used as a solution to a scheduling conflict.

Independent Study credit will be achieved through a curriculum jointly planned by the student and supervising teacher to include a final project, performance, or report. This study must be contracted between a student advanced in a given area and the supervising teacher and then approved by the principal. (See the WHS Student Handbook for more information)

## Intensive Studies in Humanities, Arts, Language, and Literature Program (ISHALL)

ISHALL is an accelerated, intensive two-year course in literature and language designed to meet the curricular goals and merit standards of high school English. For more information, see the MSU Gifted and Talented website at www.gifted.msu.edu.

## International Exchange and Study Abroad

There are many opportunities for study abroad for one or two semesters or during the summer between the sophomore, junior, and senior years. To prepare for the experience, the following curriculum is strongly encouraged beginning in the $9^{\text {th }}$ grade:
$>2-3$ full years of a world language Currently, WHS offers Spanish as a world language. However, other opportunities such as Arabic, French, German, Italian, Japanese, Portuguese, or Mandarin may be available on-line or through LCC or MSU.
$>$ A strong core of social studies classes

- American History
- World History
- Civics
- AP World History
$>$ Diverse extracurricular experiences:
- Model United Nations
- PALS
- Hosting an International Exchange Student
- Participating in the exchange with the Wilhelm Gymnasium of Braunschweig, Germany.


## Scholarships are available for International Exchange and Study Abroad:

Dave and Bev Pfeifle, graduates of Williamston High School, have recently established the JEFFREY DAVID PFEIFLE MEMORIAL FUND in their son's name. This fund is targeted to provide financial support to Williamston High School students who wish to travel and study overseas. If interested, please contact Student Services..

## Language pour Etudiants Anances de Francais (LEAF) (Two Semesters)

LEAF is an accelerated, intensive two-year course in French designed to meet the curricular goals and merit standards of the Michigan Merit Curriculum World Language requirement. For more information, see the MSU Gifted and Talented website at www.gifted.msu.edu.

## Math and Science Academy (MSA)

The Williamston High School Math and Science Academy is a program for students accelerated in both math and science. Students are admitted to the Academy only after an application process during the spring of their $8^{\text {gh }}$-grade year. More information about the Academy and the application process can be found on the MSA website.

## Michigan Virtual Courses

A statewide catalog maintained by Michigan Virtual contains the syllabi for online courses offered by any Michigan district and Michigan Virtual High School. Any online course in which a student chooses to enroll must be for credit, consistent with graduation requirements, and of sufficient quality or rigor. If not, the administration may deny the student and parent request to enroll in the online course. If the high school administration approves a student to enroll in an online course, the
course must be one of the student's six required classes per semester. The district will pay for the cost of the course. Correspondingly, the student and parent will bear the cost of any online course taken in addition to the student's full-time class schedule. Online course credits will be indicated on student reports cards and transcripts with course name and online designation. The grades are provided in terms of percentages that will be translated into the Williamston High School grading scale. Grades will be entered on student transcripts.

## Peer2Peer (LINKS - Learning to Inspire New Kinds of Support)

This program is designed for general education students interested in learning about and supporting students with special needs. Students involved in Peer2Peer will work together in an integrated and positive fashion to promote socialization, independence, and strong friendship bonds with students with special needs. Primarily, Peer2Peer students will attend class with their "LINK" who is a student with special needs to facilitate academic achievement and social interaction of the LINK. This course is for $9-12^{\text {th }}$ graders who must apply and be approved by the instructor. Peer2Peer may be repeated.

## Personal Curriculum

The Personal Curriculum (PC) is a process to modify specific credit requirements and/or content expectations based on the individual learning needs of a student. It is designed to serve students who want to accelerate or go beyond the Michigan Merit Curriculum requirements and students who need to individualize learning requirements to meet the MMC requirements. The parent or guardian of a student, or an age-of-majority or emancipated minor, may request a personal curriculum. If the school receives such a request, the school must agree to develop the PC according to the law.

The PC allows several flexible options, including:

- Earning additional credit in specific subject areas and counting these credits toward meeting the state requirements.
- Modifying the mathematics content for students who are challenged with meeting the proficiency requirements.
- Allowing modifications of the MMC necessary to demonstrate proficiency for students with an IEP.
- Allowing modifications of the MMC necessary to demonstrate proficiency for students who transfer to a district from out of state or from a nonpublic school.

See the WHS Student Handbook for more information.

## Special Education

The Special Education programs of Williamston High School are designed for students who qualify based on their Individual Education Plan (IEP). Students receive individually designed instruction to meet their unique educational needs with the express goal of fully maximizing their social, emotional, academic, and psychological growth. Our Special Education programs fully comply with all federal and state requirements.

## Testing Out

The Williamston Board of Education recognizes that in some circumstances there are students who may acquire the knowledge or skills required to demonstrate proficiency in certain academic areas without having to successfully complete a specified course. In these instances, students at Williamston High School will be allowed to "test out" of classes applicable to the Michigan Merit Curriculum as permitted by state law. Multiple performance measures, as determined by the District, will be utilized to determine proficiency. If a student demonstrates proficiency, credit for
the course shall be granted. The course will not be reflected as part of the student's grade point average (GPA) and credit earned will not be counted toward credits required for graduation.

A student shall earn credit and have the course waived if they receive a qualifying overall average score (not less than a $\mathrm{C}+$ ) on the multiple measures used to determine proficiency. Multiple performance measures may include any combination of the following: final exam, portfolio, authentic performance, paper, project; or, presentation used in the course given that the assessment(s) measure understanding of the subject area content expectations as specified in the Michigan Merit Curriculum.

Parents and students can get further information and registration forms in the Counseling Office. There is no charge to students for testing out.

## Wilson Talent Center (WTC)

The Wilson Talent Center offers Career and Technical Education courses for high school juniors and seniors. See the Wilson Talent Center website for more information about available programs.

## Work-Based Learning

Work-based Learning (WBL) is a combination of school-based preparation and actual work experiences designed to enable students to acquire attitudes, skills, and knowledge for career and other life roles in real work settings. WBL is open only to juniors and seniors for either one or two semesters. The student must obtain a job that is listed on their Educational Development Plan (EDP) in their career pathway and must have a related class at the high school or career center. Students must work an average of 5-10 hours per week, depending on the number of hours out of school. Students may receive $1 / 2$ academic credit for each hour enrolled in the program. Juniors and seniors may have up to three periods of WBL in their schedule. Paid or Unpaid Learner may be taken for one or two semesters in both the junior and senior years. OFFICE AIDES are a part of Work-Based Learning and must complete Business Technology to be eligible for the position.

## BUSINESS AND TECHNOLOGY

Students may take Accounting, Advanced Accounting, Business Management, and Personal Finance as Senior-year Math Credit.

College credit may be granted to juniors and seniors only upon successful completion of Accounting (both semester), Business Technology, and Business Management. See Mrs. Plaxton for details.

After completion of Business Technology, students may apply to be an office aide.
After completion of Accounting (both semesters), students may apply to be an aide at the business office.

Students receive Visual, Performing, and Applied Arts (VPAA) credits for courses offered in this department.

Accounting I and Advanced Accounting are offered in a blended format with a combination of face-to-face and online learning.

## ACCOUNTING, Two Semesters

## Prerequisite: None

Are you thinking about a business major in college? Get your accounting foundation here. Accounting is an essential course for all students to either explore a career in business or for personal financial needs. It is required in any business major in college. This course covers the complete accounting cycle for a proprietorship and merchandising business, along with journalizing and posting transactions. Special journals, worksheets, income statements, balance sheets, and other financial statements are also taught. The use of computers to teach automated accounting simulations is a large portion of this course. This class is offered in a blended format with part of the class being taught online. This course qualifies as a senior-year math credit and is a State-approved CTE class. College credit may be an option for juniors and seniors.

## ADVANCED ACCOUNTING, Independent Study <br> Prerequisite: Accounting

This class will reinforce and build upon accounting concepts that were introduced in Accounting. Additionally, Advanced Accounting will include uncollectible accounts, plant assets and depreciation, inventory, notes, interest, and end-of-the-fiscal-period activities. Advanced Accounting will be offered in a blended format with part of the instruction being offered online. This course qualifies as a senior year math credit and is a State-approved CTE class.

## ADVANCED BUSINESS SKILLS (BPA CLASS), $1^{\text {st }}$ Semester only as Independent Study Prerequisite: Previous BPA membership and plans to be in BPA again

If you enjoyed participating in Business Professionals of America and would like to further your involvement with the organization, this class is for you. The class will focus on the BPA Workplace Skills Assessment program. Students will enhance their skills in various business related topics such as graphic design, public speaking, economics, and others as they prepare for their specific event.

Students will also have the ability to participate in Michigan related events and the Torch program that promotes service to the community.

## BUSINESS MANAGEMENT, Semester (Not offered in 2023-24)

## Prerequisite: Business Technology

This course builds upon skills that were learned in Business Technology. Business Management incorporates such areas as international business, entrepreneurship, human resources, finance, systems management, business law, and communication into a variety of projects and applications. The use of technology and real world simulations will be integrated into the course. Students who complete this course may be eligible to receive college credit and work as an office assistant in the high school office. This course qualifies as a senior-year math credit and is a State-approved CTE class.

## BUSINESS TECHNOLOGY, Semester

## Prerequisite: None

This introductory course emphasizes essential business skills with the incorporation of technology. Students will explore the fundamentals of information technology and application in Windows and Microsoft Office with Word, Excel, Access, and PowerPoint. Various applications will focus on international business, information technology, data management and administration with relation to future professions and integration. Students may be provided the opportunity to earn Microsoft certification in this class. Juniors and seniors who complete this course may be eligible to receive college credit and work as an office assistant in the high school office. This course is a State-approved CTE class.

## DESKTOP PUBLISHING, Semester (Not offered in 2023-24)

## Prerequisite: None

Desktop Publishing is an introductory course that will acquaint students with graphic design techniques, principles of page layout and design, as well as desktop publishing terminology and applications. Students will create, design, and publish a variety of professional-looking documents such as menus, awards, newsletters, flyers, advertising brochures, programs, and booklets. The skills learned in this course will give students a marketable business skill that can be utilized in college or the workforce.

## PERSONAL FINANCE, Semester

## Prerequisite: None

This course will integrate technology with topics in personal finance including banking, loans, credit, automobile and transportation expenses, homeownership, insurance, taxes, and personal investments. General economic principles will also be introduced. This course provides practical applications for students as they prepare to handle their own finances. This course qualifies as a senior-year math credit.

## SPORTS \& ENTERTAINMENT MARKETING, Semester <br> Prerequisite: None

In this course, students will explore the intriguing world of sports and entertainment from the perspective of marketing. Sports \& Entertainment Marketing capitalizes on the popularity of sports. Marketers research the demographics and spending habits of fans in order to maximize profits on the items fans purchase in association with sporting events. The goal of sports marketing is to use the right marketing mix to meet customer needs while generating a profit.

## WEB TECHNOLOGY AND MULTIMEDIA, Semester (Not offered in 2023-24)

## Prerequisite: None

This hands-on class will provide students with an overview of multimedia and other online resources. Students will learn about each major software tool and through practical examples, will apply their online skills. Students will learn the art of online design through various forms of multimedia including Glogs, Blogger, HTML coding, and creating Web Pages, as well as, Adobe Photoshop, Flash, and Dreamweaver.

## WORK-BASED LEARNING, One or Two Semesters OPEN TO GRADES: 11-12 <br> Prerequisites: EDP, related class, obtain a job in your career pathway, Preapproval from Mrs. Plaxton

Work-based Learning is a combination of school-based preparation and actual work experiences designed to enable students to acquire attitudes, skills, and knowledge for career and other life roles in real work settings. The student must obtain a job that is listed on their Educational Development Plan (EDP) in their career pathway and must have a related class at the high school or career center. Students must work an average of 5-10 hours per week, depending on the number of hours out of school. Students may receive $1 / 2$ academic credit for each hour enrolled in the program. Juniors and seniors may have up to three periods of WBL in their schedule. Paid or Unpaid Learner may be taken for one or two semesters in both the junior and senior years. OFFICE AIDES are a part of Work-Based Learning. You must complete Business Technology to be eligible for an Office Aide position.

## ENGLISH

## (Four credits of English are required for graduation)

## ENGLISH 9, Two Semesters

## Prerequisite: None

English 9 is the entry-level course of the English Department and will include the following units:
Romeo and Juliet - read, discuss and analyze Shakespeare's play
The Odyssey - read, discuss, analyze Homer's epic poem
To Kill a Mockingbird - read, discuss, and analyze Harper Lee's novel
Lord of the Flies -read, discuss, and analyze William Golding's novel
Secret Life of Bees/ Flowers For Algernon/ Adventuresof Huckleberry Finn/ Ender's Game

- read, discuss, analyze, and compare the texts

Continued practice of note taking and outlining, reading of a novel of student's choice
Research Paper - outlining, note taking, organization of research paper with proper citations.

## ENGLISH 9 ENRICHMENT, Two Semesters

## Prerequisite: Recommendation

The course covers most of the same content as English 9 but also includes more direct instruction and scaffolding.

## ENGLISH 10, Two Semesters

## Prerequisite: English 9

English 10 is the sophomore course of the English Department and will include the following units:
A: What is an American? - synthesizing literature, expository writing
American Thought in Time - American ideologies, historical nonfiction, research paper writing
The American Playwright - drama, playwriting
B: Persuasion in America - persuasive/propaganda techniques, technical writing
The American Dream - novel reading, technical writing, possible EDP completion
The American I Am - novel reading, reflective writing, presentation

## Juniors are required to take either English 11, Advanced Placement English Language \& <br> Composition, or Advanced Placement English Literature \& Composition

Seniors are required to take either English 12, Advanced Placement English Language \& Composition, or Advanced Placement English Literature \& Composition

## ENGLISH 11, Two Semesters

## Prerequisite: English 10

English 11 is the junior course of the English Department and will include the following units:
A: The Individual and Society - classic novel reading, personal narrative writing
The Truth and the Abstract - poetry, writer biography reading
Heroes - novel reading
Vocabulary, Grammar, and MME Prep
B: Ambition and Conflict - war nonfiction, play reading Careers - job research, research paper, possible EDP completion
Personal Liberty and Individual Thought - novel reading, expository writing
Vocabulary, Grammar, and MME Prep

## ENGLISH 12, Two Semesters

## Prerequisite: English 11

English 12 is a college-bound literature and composition class open to all students who have been successful in English 11. The main class goal will be to prepare for the rigorous demands of college reading, writing, research and critical thinking. Students will write a variety of essays and research papers with focus on analysis. Students should plan to read novels as homework for 20-30 minutes a night. English 12 will include the following units:
A: College and Career Readiness Unit
Author Study and Research Paper
Lessons and Legacy
B: Shakespeare
Mystery and Crime
Reflections on Childhood

## ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION, Two Semesters

Prerequisites for Juniors: A- in English 10, an application, and a required essay
Prerequisites for Seniors: A- in English 11 or B- in AP Literature, application, and required essay
This accelerated ELA class will have two main goals:

1. To prepare students for the rigorous demands of college papers and analytical thinking;
2. To encourage students to take the National Advanced Placement Exam in May.
*A summer reading list is an expectation of this class: students will be expected to read two novels and two works of nonfiction from a list provided by the instructor.
Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION, Two Semesters
Prerequisites for Juniors: A- in English 10, an application, and a required essay
Prerequisites for Seniors: A- in English 11 or B- AP Language, application, and required essay
Summer Work Required
This accelerated ELA class will have two main goals:

1. To prepare students for the rigorous demands of college papers and analytical thinking;
2. To encourage students to take the National Advanced Placement Exam in May.
*A summer reading list is an expectation of this class.
Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## ENGLISH ELECTIVES

## CREATIVE WRITING, Semester

## Prerequisite: None

This is a writing class, which emphasizes the development of critical thinking, source validation, and the imagination. Students will be writing AND reading news stories, short stories (science fiction, mysteries, children's, myths, etc.), essays based on personal experiences, and possibly short plays or poetry. Many forms of writing will be introduced and students will have the chance to experiment with writing. Emphasis will be placed on writing style, grammar, spelling, story development, ending
with the culmination of a polished finished product. Students will have access to the computer lab. Most drafts are one to three pages long and generally one paper is required each week.

## FILM LITERATURE, Semester

Prerequisite: None (Courses are independent and may be taken in any order)
Students will be viewing, analyzing, and critiquing both classic and modern films. They will become critical viewers as they explore a variety of literary elements - ideology, theme, symbolism, character development, and tone. Students will write essays, analyses, and reports, and design film projects and presentations.

## THERE'S SOMETHING ABOUT... MOVIES

This class will include the following units: Romantic Movies, Documentaries, Big Budget
Films, Tributes, Foreign Films, Historical Fiction, and Motion Pictures Based on a True Story.

## THE GOOD, THE BAD, AND THE FUNNY

This class will include the following units: Teens in Turmoil, Good and Evil, Monsters and Mayhem, Comedy, A Soldier's Story, Mysteries

## MAY THE FILM BE WITH YOU (Not offered in 2023-24)

This class will include the following units: Unreliable Narrator, AFI's Noted Films, Inspirational Films, Disney/Pixar, The Superhero, and The Power of the Individual.

## SPORTS LITERATURE \& FILM, Semester

## Prerequisite: None

This is a course designed for sports enthusiasts who want to read and watch movies/documentaries about sports figures, athletes, coaches, and others involved in today's sports world. Students will read a variety of texts (much of which will be nonfiction), explore current trends, and research relevant issues that concern young athletes today.

## YEARBOOK PRODUCTION, One or Two Semesters

## Prerequisite: None

This class will focus on preserving our school's history through words and pictures. Students will be required to spend time outside of class. Photography, page design, and writing skills will be emphasized. Students will also be asked to sell ads. Students may repeat this class every semester that the class is offered. This course qualifies as a Visual, Performing, and Applied Arts (VPAA) credit.


## HEALTHY LIVING, Semester

## Prerequisite: None

This course will instill the importance of preserving and improving health as a lifelong skill. Students will learn about facts pertaining to healthy lifestyle choices. Topics covered will be aspects of wellness, risk factors, stress management, disease prevention and control, nutrition information, sex education, substance use and abuse, first aid, the systems of the body, and mental disorders.

## MATH

(Four credits of math are required including Geometry, Algebra I and Algebra II. At least one math course must be taken during the student's senior year.)

## ALGEBRA I, Two Semesters

Prerequisites: Geometry
The course covers functions, variation, linear functions, systems, quadratic functions, and powers as well as inverses, radicals, exponential functions, trigonometry, and polynomials.
Cost: A graphing calculator ( $\mathbf{\$ 9 0} \mathbf{- \$ 1 3 0}$ ) is required. Students with special financial considerations should see their counselor.

## ALGEBRA I ENRICHMENT, Two Semesters

Prerequisites: Geometry
The course covers the same content as Algebra I but focuses on differentiated learning while meeting the individual needs of students.
Cost: A graphing calculator (\$90-\$130) is required. Students with special financial considerations should see their counselor.

## ALGEBRA II, Two Semesters

Prerequisite: Algebra I
The course covers linear, absolute value, quadratic, polynomial, exponential, and logarithmic functions. Transformations of the function families are also studied and emphasized throughout the year. The course also covers solving exponential and logarithmic equations, trigonometric functions and equations, basic probability, and descriptive statistics, as well as normal distribution.
Cost: A graphing calculator ( $\mathbf{\$ 9 0} \mathbf{- \$ 1 3 0 )}$ is required. Students with special financial considerations should see their counselor.

EXTENDED ALGEBRA II, Four Semesters (Only parts C/D will be offered for 2023-24)

## Prerequisite: Algebra I

The course covers the same content as Algebra II but does so over two years instead of one. Consequently, students will earn two (2.0) math credits upon successful completion of this two-year course.
Cost: A graphing calculator ( $\mathbf{\$ 9 0} \mathbf{- \$ 1 3 0 )}$ is required. Students with special financial considerations should see their counselor.

## ALGEBRA II ENRICHMENT, Two Semesters

## Prerequisite: Algebra I

The course covers the same content as Algebra II but focuses on differentiated learning while meeting the individual needs of students.
Cost: A graphing calculator ( $\$ 90-\$ 130$ ) is required. Students with special financial considerations should see their counselor.

## GEOMETRY, Two Semesters

## Prerequisites: None

This course covers angles, lines, coordinate geometry, constructions, transformations, triangles, quadrilaterals, circles, similar and congruent figures, basic trigonometry and proofs. Also covered will be two- and three-dimensional figures, area, and volume.
Cost: A scientific calculator is required (\$8-15). Graphing calculators are allowed but not required. Students with special financial considerations should see their counselor. Protractors and compasses are provided, but students may bring their own.

## GEOMETRY SUPPORT, Two Semesters

Prerequisites: None
This course is for students who need additional support with Geometry (teacher recommendation only).
Cost: A scientific calculator is required (\$8-15). Graphing calculators are allowed but not required. Students with special financial considerations should see their counselor. Protractors and compasses are provided, but students may bring their own.

## MATH ELECTIVES

## ADVANCED PLACEMENT CALCULUS, Two Semesters

## Prerequisites: C+ or better in Precalculus

This course is intended for students who have a thorough knowledge of algebra, geometry, trigonometry, and precalculus. The course follows the College Board's Advanced Placement curriculum and is extremely rigorous. Students are expected to take the Advanced Placement exam in May. Successful completion of this exam may result in the granting of college credit. Topics covered include properties of functions, limits, continuity, derivatives, differential calculus with applications, and integral calculus with applications. Following the AP exam, extra topics from $1^{\text {st }}$ semester college calculus will be covered.
Cost: A graphing calculator (\$90-\$130) is required. The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES, Two Semesters

Prerequisite: Algebra I
This course follows the College Board's suggested curriculum designed to parallel a college-level computer science principles course. The course introduces students to the fundamental ideas of computer science and how to apply computational thinking across multiple disciplines. Students will learn about the fundamentals of computing, including understanding the Internet, cybersecurity, coding, building apps, and working with Big Data sets.
Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## ADVANCED PLACEMENT STATISTICS, Two Semesters (Not offered in 2023-24)

## Prerequisites: C+ or better in Algebra II

This course is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. It is intended for students with a strong background in algebra and high quantitative reasoning ability. Students are expected to take the Advanced Placement exam in May. Successful completion of this exam may result in the granting of college credit. The main themes are exploring data (describing patterns and departure from patterns), sampling and experimentation (planning and conducting a study), anticipating patterns (exploring
random phenomena using probability and simulation), and statistical inference (estimating population parameters and testing hypotheses).
Cost: A graphing calculator (\$90-\$130) is required. The cost of the AP test is approximately $\$ 100$. Students may optionally wish to purchase AP Statistics study guides (\$20) to prepare for the examination. Students with special financial considerations should see their counselor.

## INTERMEDIATE ALGEBRA-NUMERICAL TRIGONOMETRY (MATH 116, Ferris St.

 Concurrent Enrollment class), SemesterPrerequisites: C or better in Algebra II, or a score of at least 500 on the Math portion of the SAT
Special factoring forms, exponents, roots and radicals, scientific notation, fractions, first and second degree equations and inequalities, functions and graphs, logarithms, and solutions of logarithmic and exponential equations, systems of equations up to $3 \times 3$ and Cramer's Rule, numerical trigonometry including vectors, Law of Sines and Cosines, and graphs of trigonometric functions. Meets General Education requirements for Quantitative Literacy.

## INTRODUCTION TO STATISTICS (STQM 260, Ferris St. Concurrent Enrollment class), Semester <br> Prerequisite: C or better in MATH 116, or a score of at least 580 on the Math portion of the SAT <br> Introduce and explore practical aspects of sampling, data presentation, measures of central tendency and dispersion, basic probability theory, the normal probability distribution, the sampling distribution of sample means and sample proportions, confidence intervals and hypothesis tests for one-sample designs, simple linear regression, and correlation.

## PRECALCULUS, Two Semesters

Prerequisites: C+ or better in Algebra II
This course prepares students for further study in math at the college level. Topics include analysis of polynomial and rational functions, exponential and logarithmic functions, and trigonometric functions. The course also covers trigonometric identities, vectors and polar coordinates, matrices, conics, mathematical induction, and limits. Students will also be introduced to topics featured in traditional calculus coursework.
Cost: A graphing calculator (\$90-\$130) is required. Students with special financial considerations should see their counselor.

## ROBOTICS AND ENGINEERING DESIGN, Semester

## Prerequisite: None

This course will focus on mechanical engineering principles through the designing of a maze robot, drag racing robot, and battle robot. Students will learn computer programming principles through the coding of the robots and coding in a simulation programming language. (Can be taken thrice).

## COMPETITION ROBOTICS \& ENGINEERING DESIGN, Zero Hour

This course will focus on Innovative Vehicle Design(Full Scale and Mini-IVD) and FIRST Robotics competition readiness. Students will have scheduled time to work on their competition projects along with time to work on robotics projects, engineering design and programming.

## SENIOR MATH ELECTIVES

Seniors must earn $1 / 2$ credit of math in their senior year.
The classes listed below will fill this requirement.

* Course cannot be used as a senior math credit if it is being used as an elective credit ** Course cannot be used as a senior math credit if it is being used as a science credit *** Course cannot be used as a senior math credit if it is being used as a social studies credit

ACCOUNTING, Two Semesters *

ADVANCED PLACEMENT CALCULUS, Two Semesters * ADVANCED PLACEMENT CHEMISTRY, Two Semesters **

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES, Two Semesters * ADVANCED PLACEMENT MACRO-ECONOMICS, One Semester ${ }^{* * *}$

ADVANCED PLACEMENT MICRO-ECONOMICS, One Semester ***
ADVANCED PLACEMENT STATISTICS, Two Semesters *
BUSINESS MANAGEMENT, Semester *

PERSONAL FINANCE, Semester *
PRECALCULUS, Two Semesters *
ROBOTICS AND ENGINEERING DESIGN, Semester *
COMPETITION ROBOTICS \& ENGINEERING DESIGN, Semester (Zero Hour) *
MATH AND SCIENCE ACADEMY (MSA)

MSA Graduation Requirements (Class of 2022 and Beyond)

|  | Mathematics | Science | Technology/Research |
| :--- | :--- | :--- | :--- |
| $9^{\text {th }}$ Grade | MSA Algebra I | MSA Physics of Earth and Space <br> MSA Life on Earth A | MSA Robotics I |
| $10^{\text {th }}$ Grade | MSA Algebra II | MSA Life on Earth B <br> MSA Chemistry in Earth | MSA Robotics II |
| $11^{\text {th }}$ Grade | Precalculus | Anatomy or an AP Science course | MSA Research |
| $12^{\text {th }}$ Grade | AP Math Course | AP Science Course |  |

MATH AND SCIENCE ACADEMY ALGEBRA I, Two Semesters
Prerequisite: $9^{\text {th }}$-grade student in the Math and Science Academy
This course will provide a rich, rigorous foundation in algebra uniquely blended with many hands-on activities and projects that allow the student to apply concepts covered in class. The relationship between functions and real-world phenomena will be emphasized along with the use of technology
as a learning tool. Topics will include: linear, quadratic, exponential, polynomial, power and logarithmic functions. Students will also do in-depth studies of variation, exponents, transformations, and solving equations and inequalities. Throughout the class there will be an emphasis on discussion and discovery of mathematics. Students will derive many formulas to see their origins and connections. There will also be cross curricular projects with other MSA classes they are taking.
Cost: A graphing calculator ( $\$ 90-\$ 130$ ) is required. Students with special financial considerations should see their counselor.

## MATH AND SCIENCE ACADEMY ALGEBRA II, Two Semesters

## Prerequisite: $10^{\text {th }}$-grade student in the Math and Science Academy

This course covers rational expressions and graphs, trigonometric functions and equations, as well as sequences and series. This course includes work with counting principles, properties and principles of probability, probability distributions, descriptive statistics, $z$-scores and normal distribution. Students will also be introduced to higher level statistics such as confidence intervals and hypothesis testing in preparation for AP Statistics. The relationships between math concepts and real-world phenomena will be emphasized along with the use of technology as a learning tool. Throughout the class there will be an emphasis on discussion and discovery of mathematics. Students will derive many formulas to see their origins and connections. There will also be cross curricular projects with other MSA classes they are taking.
Cost: A graphing calculator ( $\mathbf{\$ 9 0} \mathbf{- \$ 1 3 0}$ ) is required. Students with special financial considerations should see their counselor.

## MATH AND SCIENCE ACADEMY LIFE ON EARTH, Two Semesters

## Prerequisite: $10^{\text {th }}$-grade student in the Math and Science Academy

This course provides students with an understanding of how humans are a part of and subsequently impact biological systems. It equips them with the understandings they need to properly understand the dynamics of life on Earth. The course begins by familiarizing students with the nature of scientific inquiry in biology and establishes two overarching themes of the discipline: interconnectedness of biological systems and evolution. The units that follow proceed through a treatment of cell theory, genetics, evolution and biodiversity. The instructional approach of the course is one of constructivist inquiry where students' master key concepts and skills through the pursuit of focus questions using explorative activities, experimentation, concept writing and substantive classroom discussion. There will also be cross curricular projects with other MSA classes they are taking. The course also includes problem-based learning for real-world issues related to biology. This course is aligned to the Michigan Science Standards in Biology.

## MATH AND SCIENCE ACADEMY CHEMISTRY IN EARTH, Two Semesters

Prerequisite: 10th- grade student in the Math and Science Academy
In this course, students will utilize scientific practices to discover knowledge and overarching concepts related to the Earth through a chemistry lense. Students will recognize unifying themes that integrate the major topics of Chemistry and how chemical processes impact our Earth. The course will cover topics including the suns processes and creation of elements, energy transformations, weather and climate, rates and equilibrium, natural resources, and global sustainability. The curriculum integrates critical thinking and laboratory skills that apply the elements of experimental design, detailed observation, accurate recording, data interpretation, and analysis and scientific reporting. There will also be cross curricular connections and a capstone project building on other MSA classes topics. This course is aligned to the Michigan Science Standards. This course will give students a great foundation to be successful in AP Chemistry.

MATH AND SCIENCE ACADEMY PHYSICS OF EARTH AND SPACE, Two Semesters
Prerequisite: $9^{\text {th }}$-grade student in the Math and Science Academy
Physics of Earth and Space is a course that integrates physics, earth science and some minor chemistry topics. This course will emphasize the scientific process, utilizing evidence to support a scientific claim while completing laboratory work to support and investigate material. Topics of study include Newtonian Mechanics including constant velocity and accelerated motions, forces, vectors, collisions, energy conservation, wave properties and electric charges, interaction of atoms, subatomic particles, simple chemical reactions, earth's processes and the sun. This course will give students a great foundation to be successful in AP Physics 1.

## MATH AND SCIENCE ACADEMY RESEARCH, Two Semesters

Prerequisite: $11^{\text {th }}$-grade student in the Math and Science Academy
This course is designed to allow students to research an area of interest as well as go through many of the processes mathematicians and scientists use in their professional careers. Students will learn how to critically and formally analyze research articles and papers from several sources. This will serve as the backdrop for the students conducting a complete research project, from concept to completion, throughout the year. Students will also be expected to give a formal, public presentation of their findings at the Michigan High School Research Symposium as well as the MSA Showcase (community event). Further,students will write a formal article to a scholarly magazine in the hopes of getting their research published. Students will also apply for summer research opportunities that interest them.

## MATH AND SCIENCE ACADEMY ROBOTICS I, Semester

Prerequisite: $9^{\text {th }}$-grade student in the Math and Science Academy
This course will focus on mechanical engineering principles through the designing of a maze robot, drag racing robot, and battle robot. Students will learn computer programming concepts through the coding of the robots and coding in a simulation programming language.

## MATH AND SCIENCE ACADEMY ROBOTICS II, Semester

Prerequisite: $10^{\text {th }}$-grade student in the Math and Science Academy
This course will start with an advanced programming unit in JavaScript, where students will explore more object-oriented programming design. The second component of the class will be a Technology project that each student will propose as an individual or group project. Students will be encouraged to research and choose a project that they find interesting and applies to their future academic plans.


## PHYSICAL EDUCATION

(One half credit of PE is required for graduation. Students may take more than one semester of classes in this department.)

LIFEGUARD TRAINING (AMERICAN RED CROSS) (Not offered in 2023-24)
Prerequisites: Minimum Age Requirement: 15 (by the end of the semester)

- Swim 300 yards continuously using either front crawl using rhythmic breathing or breaststroke;
- Swim 20 yards using front crawl or breaststroke, surface dive head first to a depth of 10-13 feet, retrieve a 10 lb . object, return to the surface, and swim 20 yards on back to the starting point with the object;
- Tread water for two minutes without the use of hands;
- Signed agreement with the student and parent or guardian.

In this course, students will learn a variety of swimming safety and water rescue techniques certified by the American Red Cross. Upon successful conclusion of the course, students may become certified lifeguards.
Cost: $\$ 50.00$ includes American Red Cross lifeguarding manual, whistle and lanyard. Materials must be purchased by the second week of the course. Proper swim attire required.

## FITNESS FOR LIFE, Semester

## Prerequisite: None

Students will become physically fit and understand the importance of lifelong physical fitness. Learn concepts of strength using different formats that you can complete throughout a lifetime. Learn and identify different muscles used in individual lifts and activities. Demonstrate proper techniques for strength exercises. Increase fitness levels. Units will include strength \& conditioning, fitness running, yoga, tai chi, kickboxing, water aerobics, community net sports, and archery. Students may repeat this class every semester that the class is offered.
Cost: Proper gym clothes and shoes for activities are required.

## SPORTS PREP, Semester

Prerequisite: Students must be a member of a fall, winter, or spring sports team to enroll and may enroll even when not in their sport season. This course focuses on preparing student athletes to excel in their individual sport. Class will be centered on strength building, endurance, flexibility, agility, and obtaining knowledge of nutrition for their sport. Students may repeat this class every semester that the class is offered.
Cost: Proper gym clothes and shoes for activities are required.

## TEAM SPORTS, Semester

## Prerequisite: None

Students will learn the rules, scoring, and skills needed for participating and understanding team sports. The class will also include general physical conditioning and body awareness through individual, light, moderate, and strenuous activity. The first semester includes football, soccer, speedball, basketball, volleyball, physical conditioning, weight training, floor hockey, wrestling and recreational games. The second semester includes basketball, volleyball, softball, physical conditioning, weight training, and floor hockey. Students may repeat this class every semester that the class is offered. Cost: Proper gym clothes and shoes for activities are required.

## WEIGHT TRAINING \& PHYSICAL CONDITIONING, Semester

Prerequisite: None

Students will become physically fit and understand the importance of lifelong physical fitness.
Methods used will include sprint and distance running, stretching and agility drills, exercise without apparatuses, exercise with apparatuses, heavy rope, jump ropes, and free weights. Students may repeat this class every semester that the class is offered.
Cost: Proper gym clothes and shoes for activities are required.

## SCIENCE

## (Three credits of Science are required for graduation - Physics of Earth and Space, Life on Earth, and Chemistry in Earth)

## LIFE ON EARTH, Two Semesters

## Prerequisite: Physics of Earth and Space

This course provides students with an understanding of how humans are a part of and subsequently impact biological systems. It equips them with the understandings they need to properly understand the dynamics of life on Earth. The course begins by familiarizing students with the nature of scientific inquiry in biology and establishes two overarching themes of the discipline:
interconnectedness of biological systems and evolution. The units that follow proceed through a treatment of cell theory, genetics, evolution and biodiversity. The instructional approach of the course is one of constructivist inquiry where students' master key concepts and skills through the pursuit of focus questions using explorative activities, experimentation, concept writing and substantive classroom discussion. The course also includes problem-based learning for real-world issues related to biology. This course is aligned to the Michigan Science Standards in Biology.

## CHEMISTRY IN EARTH, Two Semesters

## Prerequisite: Life on Earth

In this course, students will utilize scientific practices to discover knowledge and overarching concepts related to the Earth through a chemistry lens. Students will recognize unifying themes that integrate the major topics of Chemistry and how chemical processes impact our Earth. The course will cover topics including the suns processes and creation of elements, energy transformations, weather and climate, rates and equilibrium, natural resources, and global sustainability. The curriculum integrates critical thinking and laboratory skills that stress the development of experimental design, detailed observation, accurate recording, data interpretation, and analysis. This course is aligned to the Michigan Science Standards and integrates Chemistry and Earth Science topics. This course will give students a good foundation to be successful in AP Chemistry.

## PHYSICS OF EARTH AND SPACE, Two Semesters

## Prerequisite: None

Physics of Earth and Space is a course designed to address the major topics of the essential high school physics content expectations while integrating some earth science standards and important chemistry concepts fundamental to biology. The course proceeds through units that inquire into electricity and magnetism, wave theory, mechanics, energy, basic atomic structure, earth processes, stars and the origins of the universe.. The instructional approach of the course is one of constructivist inquiry where students master key concepts and skills through the pursuit of focus questions using explorative activities, experimentation, concept writing and substantive classroom discussion. This course is aligned to the Michigan Science Standards integrating Physics, Chemistry and Earth Science topics. This course will give students a good foundation to be successful in AP Physics 1.

## ADVANCED PLACEMENT BIOLOGY, Two Semesters

Prerequisites: B in Biology; Summer Work Required
Recommended: Anatomy \& Physiology (previously or concurrently),
Advanced Placement Biology is a beginning-level college biology course and is intended for those students who will use the biological sciences for career preparation or who have an intense interest in biology as a science. On successful completion of the course, students are strongly urged to take the Advanced Placement Test in biology in mid-May. A passing grade on this test is accepted for credit in Introductory Biology by many colleges and universities in the United States. The course consists of an intensive survey of biology using a college-level text as well as multiple laboratory experiences. Topics covered in AP Biology include chemistry and cells, genetics, evolution, evolutionary history of life, plant form and function, animal form and function, and ecology. This extensive scope of topics requires a commitment to a large amount of time outside of the classroom. Cost: The cost of the AP test is approximately $\$ \mathbf{1 0 0}$. Students with special financial considerations should see their counselor.

## ADVANCED PLACEMENT CHEMISTRY, Two Semesters

Prerequisites: B in MSA10 Physical Science or Chemistry of Earth \& Space; Summer Work Required
AP Chemistry is the equivalent of an introductory college-level chemistry course in both the content and the laboratory experience. On successful completion of the course, students are strongly urged to take the Advanced Placement Test in chemistry in mid-May. A passing grade on this test is accepted for credit in Introductory Chemistry by most colleges and universities. AP Chemistry builds on the skills and knowledge attained in 1st year chemistry and provides the student with an opportunity to develop a deeper understanding of chemistry and the ability to think critically and to solve problems. Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## ADVANCED PLACEMENT PHYSICS 1: Algebra Based, Two Semesters

Prerequisites: B- or better in Algebra 1; Summer Work Required Recommended: Completion of MSA ALGEBRA I or ALGEBRA II
AP Physics 1 is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. AP Physics 1 can be taken as an introductory course with no prior physics coursework necessary. This course is designed to enable you to develop the ability to reason about physical phenomena using important science process skills such as explaining causal relationship, applying and justifying the use of math, designing experiments, analyzing data, and making connections and predictions. This course is useful for potential science and computer science majors as well as anyone interested in Physics and majoring in a non-science field in college. Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## ANATOMY AND PHYSIOLOGY, Two Semesters

## Recommended: B in Biology

Covers the basics of human anatomy and physiology including anatomical terminology, basic biochemistry, cells and tissues, and the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, and reproductive systems. Introduces common human disease processes. Prepares anyone interested in medical or health professions to take advanced anatomy and physiology courses. A variety of assessments will be used to evaluate students including but not limited to dissections, drawings, posters, presentations and written work.

## FORENSICS, Semester

## Prerequisite: None

Forensic Science is the application of science to matters of law. This course will introduce students to the procedures used by forensic scientists in the criminal justice system. Topics will include processing crime scenes, handling of physical evidence, microscopic identification of hairs, fibers and paint, fingerprints, DNA technology and its uses, and forensic science on the internet.

## GENETICS, Semester

## Prerequisite: Life on Earth (Biology)

This course goes into more depth on the genetics topics covered in general biology, as well as covering additional topics that the general biology course does not cover. The course will briefly review topics from general biology such as DNA structure and replication, protein synthesis, and patterns of inheritance. Additional topics include gene structure, polygenic traits (traits controlled by multiple genes), epigenetics (how the environment can modify gene expression), and current topics and research in genetics culminating in a final research project. Classwork will consist of both lecture and inquiry-based activities. The course is intended for students who are planning to study genetics, medicine, or other biological topics in the future, as well as students who are simply interested in genetics as a science.

## SOCIAL STUDIES

(Three credits in Social Studies are required for graduation)

## CIVICS, Semester

## Prerequisites: U.S. History \& Geography

This course will analyze the foundations, origins, structure, and functions of civic and political life. Additionally, students will investigate the role and responsibilities of the individual within society. Students will analyze and interpret information in developing their understanding. The purpose of Civics intends for students to make reasoned and informed decisions and understand how citizens can fully participate in American society.

## ECONOMICS, Semester

## Prerequisites: U.S. History \& Geography

The students will be introduced to traditional methods of macroeconomic measurement and analysis and economic theory. They will examine the economy of the United States in relation to the global economy. In addition, they will be introduced to microeconomic principles and day-to-day decision-making in the business world

## UNITED STATES HISTORY \& GEOGRAPHY, Two Semesters

## Prerequisite: None

The first semester (U.S. History "A") will cover subjects within Reconstruction, Industrialization, Imperialism, the Progressive Movement, World War I and the Great Depression. The second semester (U.S. History "B") will begin with World War II, the Cold War, the Korean War, the Civil Rights Movement, Vietnam, Reaganomics, and more recent U.S. history. The students will also have to demonstrate the ability to identify the 50 states along with other key geographic features.

## WORLD HISTORY \& GEOGRAPHY, Two Semesters

## Prerequisite: U.S. History \& Geography

The class will begin with 300 C.E. and continue to the present day. Students will explore the expanding and intensified hemispheric interaction, the emergence of the first global age $\left(15^{\text {th }}-18^{\text {th }}\right.$ centuries), an age of global revolutions ( $18^{\text {hh }}$ Century - 1914), global crisis and achievement (1900-1945) and the Cold War and its aftermath. In the first semester, students review the world prior to 300 C.E., and continue with an exploration in world events from 300 C.E. to 1800 C.E., culminating with the effects of the Columbian Exchange. In the second semester, students take the class beginning with the Enlightenment through the Industrial Revolution as well as political revolutions, two World Wars and continued globalization in the $20^{\text {th }}$ and $21^{\text {st }}$ centuries.

## Social Studies Electives

## ADVANCED PLACEMENT PSYCHOLOGY, Two Semesters

## Prerequisites: Summer Work Required

Recommended: Semester-long psychology course (B or better), either traditional or online The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.
Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## ADVANCED PLACEMENT MICRO-ECONOMICS, Semester

## Meets Economics Requirement

Prerequisites: B in U.S. History \& Geography
AP Micro-economics reviews the fundamental principles which govern economic activity at the level of the individual and firm. In addition to preparing a student for the AP Exam in micro-economics, a major emphasis of this course will be on the development of critical thinking skills and the application of economic principles and methodologies in problem solving. Consequently, the course will incorporate a wide variety of activities including formal instruction in writing; presentations; research projects; and problem solving activities in addition to traditional lectures, exams and homework problems.
Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## ADVANCED PLACEMENT ECONOMICS (Micro/Macro), Two Semesters

Meets Economics Requirement
Prerequisites: B in U.S. History \& Geography
AP Macro-economics reviews the fundamental principles which govern economic activity at both the level of the individual/firm and the aggregate economy. In addition to preparing a student for the AP Exams in micro and macro-economics, a major emphasis of this course will be on the development of critical thinking skills and the application of economic principles and methodologies in problem solving. Consequently, the course will incorporate a wide variety of activities including formal instruction in writing; presentations; research projects; and problem solving activities in addition to traditional lectures, exams and homework problems.
Cost: The cost of each AP test is approximately $\$ 100$. There are two tests for AP Economics, one for micro and one for macro. Students with special financial considerations should see their counselor.

## ADVANCED PLACEMENT UNITED STATES GOVERNMENT, Two Semesters

 MEETS CIVICS REQUIREMENT (Not offered in 2023-24)Prerequisites: B in both U.S. History \& Geography and World History \& Geography This AP class is designed to be similar to a beginning level college political science class and is offered for high school juniors and seniors. The purpose will be to prepare students for college reading, writing, and analytical thinking and to encourage students to take the AP Test in May. Topics will include the functions of the national government, Constitutional framework, civic rights and responsibilities, the political process and elections, and the role of the media on political decision making. The activities will include discussions, debates, group seminars, advanced readings, and research on current events will be a key in helping students prepare for college.

Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## ADVANCED PLACEMENT UNITED STATES HISTORY, Two Semesters <br> Prerequisites: B in both U.S. History \& Geography or permission from Principal,Summer work is required.

This AP class is designed to be similar to a beginning level college American history class and is offered for high school juniors and seniors. The content will begin with the early exploration of North and South America and bring us to present time in the U.S. The course is divided into themes of society, culture, economic development, international relations, and political structure. Its purpose will be to prepare students for college reading, analytical thinking and to encourage students to take the AP Test in May. Group seminars on major political or social issues, advanced readings, and analysis of major foreign and domestic policies will be a key in helping students prepare for college.
Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## ADVANCED PLACEMENT WORLD HISTORY, Two Semesters (Not offered in 2023-24) Prerequisites: B in U.S. History \& Geography; Summer Work Required

Meets World History Requirement
The Advanced Placement World History course is designed to be a college-level, freshman World History course. The course will help students prepare for the AP World History test and for college even if they decide not to take the test. Students will develop a greater understanding of the evolution of global processes and contacts, and the interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. Through the year students will explore the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. Students will be required to read a college level textbook and complete several writing assignments throughout the year along with vocabulary development.
Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## PSYCHOLOGY, Semester

## Prerequisite: None

Psychology is the study of human behavior. The course units of study are all rooted in Scientific Inquiry and will explore six broad content domains: Biopsychology, Development and Learning, Sociocultural Context, Cognition, Individual Variations, and Applications of Psychological Science. The learning goals and course curricula are directly aligned to the American Psychological Association's National Standards for High School Psychology. Learning will take place by means of experiments, individual and team projects, videos, reading, and lectures.

## SOCIOLOGY, (10th-12th grades), Semester

This course will examine human society through the study of social action and social organization and the grey area that often is found in the world. Sociology is the study of group behavior and interaction and differs from psychology, which is the study of individual behavior. We will use a variety of methods to learn the course content, including class discussion, teacher lecture, personal observation, small group work, the textbook, research papers/presentations and utilizing resources on the internet.

## CERTIFICATE OF COMPLETION

Those students achieving a Certificate of Completion instead of a diploma must earn the following credits. The requirements may be fulfilled in a variety of ways, including, but not limited to, Career/Technical Education, college credit courses, online learning, project-based learning, traditional courses, alternative educational experiences, and work-based learning.

- Four credits in English language arts.
- Four credits in math.
- Three credits in science.
- Three credits in social studies.
- One credit in Visual, Performing and Applied Arts.
- One half credit in Physical Education and one half credit and Health.
- 6.0 credits in electives.
- All high school students must also participate in an online course or learning experience.


## PERSONAL CURRICULUM (PC)

For some students, a PC may offer the best opportunity to succeed in high school and achieve postsecondary goals. A parent may want to consider this option if his or her child struggled with middle school curriculum and will require extensive support to meet high school requirements or is currently having difficulty meeting high school course requirements. The parent(s) or legal guardian(s) of a student, or an emancipated "age of majority" student may request a PC. School personnel may also request a PC or recommend that students and parents consider the PC option. See "Personal Curriculum" on Page 7 for more details.

## ACADEMIC LAB

## Prerequisite: Eligibility for this class is determined by the IEP process

This course is designed to provide Resource Program support to students with disabilities.
Eligibility for this class is determined by the IEP process. Students will work independently or with support. This class will include development of various study, organizational, self-determination, and time management techniques.

## LIFE SKILLS ENGLISH, Two Semesters

Prerequisite: Eligibility for this class is determined by the IEP process.
English Lab addresses the Essential Elements standards for grades 9-12 set by the Michigan Department of Education. This course covers English skills needed for everyday living in addition to narrative text, informational text, vocabulary acquisition and usage, writing conventions, speaking \& listening and research. This course counts as an elective credit.

## CONSUMER MATH SKILLS, Two Semesters

Prerequisite: Eligibility for this class is determined by the IEP process.
Math Lab addresses the Essential Elements standards for grades 9-12 set by the Michigan Department of Education. This course covers math skills needed for everyday living in addition to basic algebra, basic geometry, and basic functions. This course counts as an elective credit.

## MODIFIED ALGEBRA I: Two Semesters

Prerequisites: teacher recommendation, an IEP, and a documented math disability Modified Algebra I addresses the Ingham County Power standards for Algebra I and satisfies the requirements for a diploma. The course covers pre-algebra skills, functions, linear functions, systems, quadratic functions, and powers. In addition, the students will work on math related IEP goals.

## MODIFIED ALGEBRA II, Two Semesters

Prerequisite: Algebra I, teacher recommendation, an IEP, and a documented math disability.
Modified Algebra II addresses the Ingham County Power standards for Algebra II and satisfies the requirements for a diploma. . The course covers linear, absolute value, quadratic, polynomial, and exponential functions. In addition, the students will work on math related IEP goals.

## MODIFIED GEOMETRY, Two Semesters

Prerequisites: teacher recommendation, an IEP, and a documented math disability. Modified Geometry addresses the Ingham County Power standards for Geometry and satisfies the requirements for a diploma. This course covers angles, lines, triangles, transformations, polygons, circles, logic, similar figures, and proofs. Also covered will be two- and three-dimensional figures, area, and volume. In addition, the students will work on math related IEP goals.

## SOCIAL STUDIES \& LIFE SKILLS, Two Semesters

Prerequisite: Eligibility for this class is determined by the IEP process
This program is designed for students to build functional academic skills and transfer these skills across real-world settings. Students will work in small groups to continually practice socialization as well as socially appropriate and functional communication. Additionally, students will explore and expand their knowledge of the local community and have opportunities for employment/job skill development.

# VISUAL, PERFORMING, AND APPLIED ARTS 

VISUAL ARTS

## ADVENTURES IN ART: ART FOR BEGINNERS, Semester

## Prerequisite: None

Be art smart! This course is designed for the beginner high school art student. Get your "feet wet" by learning to draw, paint, design, and sculpt. Become more cultured by learning about artists and world cultures. Each student will refine their craftsmanship in this art "boot camp." Students will keep their own sketchbook of research, techniques and sketches.

## EAT, BREATHE, ART: ADVANCED ART, Semester

Prerequisite: Adventures in Art: Art for Beginners or teacher approval/signature based on current portfolio.
Be a well-rounded artist! This course focuses on refining the abilities of the student artist by teaching development of fine craftsmanship, media techniques, and originality. Artists will work from observation and research and will keep a progressive sketchbook of research, techniques and sketches. This class may be taken more than once. Projects the second time around will be significantly larger and more challenging.

## PLAYING WITH CLAY: CERAMICS FOR BEGINNERS, Semester

## Prerequisite: None

Do you like working with your hands? Then, roll up your sleeves because this is the art class for you! This course is an introduction to the development of skills and techniques used with three-dimensional art forms such as clay handbuilding techniques and the additive/subtractive sculptural process. Students will keep a progressive sketchbook of research, techniques and sketches. There will also be a focus on history, vocabulary and famous 3D artists as they relate to our studies.

## ADVANCED CERAMICS: HARD CORE EDITION, Semester <br> Prerequisite: Playing with Clay: Ceramics for Beginners or teacher approval/signature based on current portfolio

This course is for the advanced ceramics and sculpture student. This course is a further exploration of the skills and techniques used with three-dimensional art forms such as pottery wheel techniques, glazing techniques and carved sculptures. Students will keep a progressive sketchbook of research, techniques and sketches. We will continue to build on vocabulary and knowledge of 3D art history and famous artists as they relate to our studies. This class may be taken more than once. Projects the second time around will be significantly larger and more challenging.

## FUN WITH PHOTOGRAPHY, Semester

## Prerequisite: None

Do you like taking pictures? In this course, students will learn how to capture action and abstract photos, macro photography techniques, shoot portraits, landscapes, cityscapes and work with photo
manipulation. Students will keep a progressive blog of research, techniques and post their photographs. Take pictures like the pros, have fun in school, and get credit for it!

## GRAPHIC DESIGN, Semester

## Prerequisite: None

Design is EVERYWHERE. From shoes, appliances, magazines, websites, to video games, food packages, and clothing, designers create our world. In this course, students will design posters, album covers, logos, t-shirts, and other types of useful objects. Students will combine hand drawn techniques with digital manipulation. This is a great opportunity to learn skills in one of the lead money-making careers as an artist.

## AP ART 2D, Drawing, or 3D, Two Semesters

Prerequisite for 2D: At least two 2D classes or teacher approval/signature based on current portfolio.
Prerequisite for 3D: At least two 3D classes or teacher approval/signature based on current portfolio.
Are you considering majoring or minoring in art? Then, you need this class to complete your college portfolio, to apply for scholarship money, and to earn college credit! Students who take this year long independent study will practice, experiment, and explore by creating artwork based on an overarching theme. In place of an AP Test, there will be a digital portfolio submission and a physical portfolio submission of artwork to the College Board. This class is made for the students who are serious about art and who want to pursue art as a future career.
Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

## TELEVISION BROADCASTING, Semester

## Prerequisite: 10th-12 grades

The focus of the class is to create programming that will be viewed by your peers and school staff. To this end, students will be asked to work in groups to create the content. Attendance is a priority in this class and absent days will negatively impact the grade.The two main goals of the class will be to produce the six minute Williamston Weekly, which highlights school activities, along with producing the six minute WHS Daily Announcements. Students will be expected to contribute to the class through in-front-of and behind-the-camera activities (filming, editing, and acting). Students should be aware that filming will have to be done outside of the scheduled class period. Students with previous Television Broadcasting class credit may apply for advanced opportunities with Instructor. This class may be repeated for credit.

## PERFORMING ARTS

## CHOIR (BEL CANTO), Two Semesters

## Prerequisite: None

Bel Canto is a non-auditioned treble choir. Students will learn both the basics of healthy singing and music reading through performances. The choir will perform works ranging from the Renaissance to modern popular music as well as everything in between and will perform at four concerts per year, as well as the MSVMA Choral Festival to be evaluated by established choral educators. For experienced singers, greater emphasis is placed on individual leadership and continued vocal growth. For newer singers or students joining choir for the first time, this will be an opportunity to learn
about music, have experiences as a performer and learn vocal techniques. Additionally, Solo and Ensemble and opportunities will be available.

## CHOIR (VERISMO), Two Semesters

## Prerequisite: None

Verismo is a non-auditioned mixed choir. Students will learn both the basics of healthy singing and music reading through performances. The choir will perform works ranging from the Renaissance to modern popular music as well as everything in between and will perform at four concerts per year, as well as the MSVMA Choral Festival to be evaluated by established choral educators. For experienced singers, greater emphasis is placed on individual leadership and continued vocal growth. For newer singers or students joining choir for the first time, this will be an opportunity to learn about music, have experiences as a performer and learn vocal techniques. Additionally, Solo and Ensemble and opportunities will be available.

## IAZZ BAND, Semester (This course is offered during Zero Hour) <br> Prerequisite: Audition

In this class students will explore through reading music and performance styles, jazz band music. Students will develop jazz symbol reading and interpretation, jazz literature styles, and improvisation. Students will also have an opportunity to study the history of jazz music through the use of various media. Students may repeat this class every semester that the class is offered.

## SPEECH, (10th-12th grades). Semester (Not offered in 2023-24)

The focus of the class will be to research and deliver polished speeches, of various time lengths, with a goal of enhancing one's ability to communicate. Students will learn various techniques such as transitional movement, hand gestures, pausing, voice inflection, pronunciation and enunciation strategies in order to deliver a successful speech. Both prepared and extemporaneous speech will be a focus of the class.

## SYMPHONY BAND, Two Semesters

## Prerequisites: Audition

The high school band participates in various performances throughout the year including home football games, community parades, and MSBOA festivals. The literature performed in this group is selected to improve and refine student musical achievement and understanding.

## THEATER PRODUCTION, Semester

## Prerequisite: None

Over the course of a semester, this class will explore all aspects of theater production and perform one major play. Students will be expected to be involved with many aspects of play production such as set building, light and sound technology, costuming, makeup, advertising and acting (not all students are expected to take or are guaranteed an acting role). This class involves a significant time commitment beyond the classroom; after-school rehearsals, dress rehearsals and performances are to be expected. This course will work around sports schedules so that all students will have an opportunity to participate in drama. Extracurricular activities usually do not interfere too much with this class. Students may repeat this class every semester that the class is offered. Attendance is required during dress rehearsal week and the performances are the final exam in this class.

## APPLIED ARTS

All courses offered in the Business and Technology Department count as Applied Arts.
YEARBOOK PRODUCTION, One or Two Semesters
Prerequisite: None
This class will focus on preserving our school's history through words and pictures. Students will be required to spend time outside of class. Photography, page design, and writing skills will be emphasized. Students will also be asked to sell ads. Students may repeat this class every semester that the class is offered. This course qualifies as a Visual, Performing, and Applied Arts (VPAA) credit.

## WORLD LANGUAGES

## SPANISH

## SPANISH I, Two Semesters

## Prerequisite: None

Students will develop linguistic strategies in Spanish for real life situations and applications. Skills will be at a survival level, focusing on reading, writing, listening, and speaking as well as the study of the Hispanic culture.

## SPANISH II, Two Semesters

## Prerequisite: Spanish I

As in Spanish I, students will continue to develop linguistic strategies in Spanish for real life situations while deepening their understanding and usage of the Spanish language. Students will focus on reading, writing, listening, and speaking as well as the study of the Hispanic culture.

## SPANISH III, Two Semesters

## Prerequisite: Spanish II

As in Spanish II, students will continue to develop linguistic strategies focusing on reading, writing, speaking, and reading for fluency in Spanish. The course will incorporate the study of historical, social, and cultural issues as well as literature from various sources.

## SPANISH IV, Two Semesters

Prerequisite: Spanish III
As in Spanish III, students will continue to develop linguistic strategies focusing on reading, writing, speaking, and reading for fluency in Spanish. The course will incorporate the study of historical, social, and cultural issues as well as literature from various sources.

## ADVANCED PLACEMENT SPANISH LANGUAGE \& CULTURE, Two Semesters Prerequisite: Spanish IV

Develop your Spanish language skills and learn about the cultures in Spanish-speaking parts of the world. You'll practice communicating in Spanish and study real-life materials such as newspaper articles, films, music, and books.
Cost: The cost of the AP test is approximately $\$ 100$. Students with special financial considerations should see their counselor.

