

**ALCONA COMMUNITY HIGH SCHOOL**

**HOME OF THE TIGERS!**



*Excellence Today...  
Success Tomorrow*

**2020-2021  
CURRICULUM GUIDE**

# **ALCONA COMMUNITY HIGH SCHOOL CURRICULUM GUIDE FOR STUDENTS**

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## **SCHOOL MISSION**

Excellence today....success tomorrow!

## **PURPOSE**

This guide is designed to share information with parents and students about the courses of study offered at Alcona High School, to assist with the development of a program of study designed to fit ALL students' educational and career goals. See Appendix A at the end of this document for additional resources and materials that may be helpful in the Educational Development Plan (EDP) process. A student's interests, abilities, aptitudes, personal characteristics and short and long term goals are important factors to be considered when selecting courses and programs of study.

## **GRADUATION REQUIREMENTS**

Alcona Community High School offers several pathways to a high school diploma. Every student is required to take certain courses required by The State of Michigan and/or school board policy in order to be eligible to receive a diploma (currently totaling 18 credits); the remaining 7 credits required for graduation are electives to be selected based upon the pupil's needs, abilities and goals. Students and their families are encouraged to work with the Academic Counselor to discuss postsecondary goals and develop their educational development plans. Students at Alcona High School will need to earn 25 credits to graduate. There are three different diplomas paths available to students:

### **Honors Diploma (25 credits):**

Required Credits	Subject Area	Traditional Course offerings to meet requirements
4 credits	Language Arts	English I, II, III, and IV
4 credits	Mathematics	Algebra I; Geometry or Geometry in Construction; Algebra II or Dual Enrollment in Math 110 and Math 112 or math-approved CTE completion; a math-related course during senior year
3 credits	Science	<u>Traditional Path:</u> Biology, Chemistry, Intro to Physics, or Human Anatomy, and a 3rd Science or Dual Enrollment <u>Agriscience path:</u> Bio in Ag, Service Learning in Env. Science or Ag. Mechanics, then Advanced Ag and/or Ag Leadership
1 credit	Physical Education	3 credits Social Studies US History, World History, Government OR Dual Enrollment Government, Economics OR Dual Enrollment Economics
1 credit	Fine, Performing or Practical Arts	Health/Physical Education Art, Drama, Creative Writing, Yearbook, Woodworking, Band, Choir, etc
2 credits	World Lang.	Both credits have to be in the same

world language  
Both World Language credits must be in a single foreign language.

15 Dual Enrollment Credits (This equals 3.75 H.S. credits)

**High School Diploma (25 credits):**

Required Credits	Subject Area	Traditional Course offerings to meet requirements
4 credits	Language Arts	English I, II, III, and IV
4 credits	Mathematics	Algebra I or Algebra Concepts; Geometry or Geometry in Construction, Algebra II or Dual Enrollment in Math 110 <u>and</u> Math 112; a math-related course during senior year
3 credits	Science	<u>Traditional Path</u> : Biology, Chemistry or Intro to Physics, and a 3rd Science or Dual Enrollment <u>Agriscience path</u> : Bio in Ag, Service Learning in Env. Science or Ag. Mechanics, then Advanced Ag and/or Ag Leadership
1 credit	Physical Education	3 credits Social Studies
1 credit	Fine, Performing or Practical Arts	US History, World History, Government OR Dual Enrollment Government PLS 221, Economics OR Dual Enrollment Economics ECN 232
2 credits	World Lang.	Health/Physical Education Art, Drama, Creative Writing, Yearbook, Woodworking, Band, Choir <u>Traditional path</u> : Spanish I & II <u>Spanish I/Fine Art pathway</u> : Spanish I, plus one additional Fine Art/CTE credit, OR Dual Enrollment for: Spanish I & II

**Michigan Merit Curriculum Diploma (18 credits):**

(available to students beginning the first summer session after their 4<sup>th</sup> year of High School)

18 credits per the Michigan Merit Curriculum:

- 4 English
- 4 Math (includes Algebra, Geometry, Algebra 2 or equivalent)
- 3 Science (Biology, Chemistry or Physics, a third science credit)
- 3 Social Studies (US, World, Government, Economics or equivalent)
- 1 Fine, Performing, or Practical Art
- 1 Health/PE
- 2 World Language (1 year of World Language and 1 year World Language equivalent)

## **DUAL ENROLLMENT & EARLY COLLEGE OPPORTUNITIES**

### **Eligibility**

- Eligible Student – 388.513(1)(f)
  - A student enrolled in at least one high school class in a school district, public school academy, or state-approved nonpublic school in Michigan.
  - Excludes foreign exchange pupils enrolled under a cultural exchange program (J-1 Visa).
  - Student must have at least one parent or legal guardian that is a resident of Michigan (unless the student is experiencing homelessness).
- Eligible Postsecondary Institution – 388.513(1)(e)
  - A state university, community college, or independent nonprofit degree-granting college or university that is located in this state and that chooses to comply with the Postsecondary Enrollment Options Act.
- Eligible Course – 388.513(1)(d)
  - Course offered by an eligible postsecondary institution for postsecondary credit.
  - Not offered by eligible student's high school (or is not available to the student due to an unavoidable scheduling conflict).
  - Academic in nature:
    - Normally applies toward satisfaction of [postsecondary] degree requirements.
    - Not ordinarily taken as an activity course.
    - Not a hobby, craft, or recreational course.
  - In a subject area other than physical education, theology, divinity, or religious education.
  - For subject areas assessed on a readiness assessment or the Michigan Merit Examination, eligible courses are limited to those subject areas for which the student has achieved a qualifying score.
    - Not required for computer science or foreign language courses.
    - A district may elect to support a student's enrollment in a subject area that the student has not yet achieved a qualifying score if it has been determined to be in the best educational interest of the student.
  - DUAL ENROLLMENT Course limits:
    - ☒ Up to 10 courses overall can be covered under the Postsecondary Enrollment Options Act. For a student that first dual enrolls in:
      - 9<sup>th</sup> grade – not more than two courses per year in 9<sup>th</sup>, 10<sup>th</sup>, and 11<sup>th</sup> grade, and not more than four courses in grade 12
      - 10<sup>th</sup> grade – not more than two courses in 10<sup>th</sup> grade, and not more than four courses in 11<sup>th</sup> and 12<sup>th</sup> grade
      - 11<sup>th</sup> or 12<sup>th</sup> grade – not more than six courses per year
    - ☒ \*\*\*These limits do not apply when a written agreement exists between a public school district and a postsecondary institution, or if the district has elected to support a student's enrollment beyond what is required in PA 160 of 1996.
    - ☐ \*\*\*\*Students who begin to take Dual Enrollment courses in their 9th & 10th grade year may have to take extra high school classes in order to complete High School graduation requirements as approved by the Board of Education.

### **Eligible Charges – 388.513(1)(c)**

- Charges covered under the Postsecondary Enrollment Options Act include:

- ☐ Tuition, mandatory course fees, materials fees (including textbooks required for a course), and registration fees required by the postsecondary institution for enrollment in a course.
- ☐ Any late fees charged by a postsecondary institution as a result of the State or a school district not making the required payment in time (according to this Act).
- Transportation fees, parking costs, and activity fees are not eligible charges.
- For a district that receives funding through state aid, the district is not required to provide more tuition support under this act than what is received by the district through state aid for the student for the school year.

### **Academic Credit – 388.517**

- Postsecondary courses may be taken for high school credit, postsecondary credit, or both. A student makes this decision at time of enrollment. When more than one course is being taken, a student may make different credit designations for each course.
- Students attending a state-approved nonpublic school may take courses that are considered “essential” for postsecondary credit only. Courses considered “nonessential electives” may be taken for high school credit, postsecondary credit, or both.
- Eligible courses paid for under the Postsecondary Enrollment Options Act may not be audited by the student.
- School districts shall grant academic credit and count that credit toward graduation and subject area requirements of the school district when applicable and when a student has designated a dual enrollment course was taken for high school credit or both high school credit and postsecondary credit. School districts may determine how much high school credit shall be awarded for a course, and how that credit will be applied to a student’s transcript (letter grade, pass/fail, etc.).

### **AHS students are eligible for dual enrollment if the following criteria are met:**

1. Reached 9th grade and has not graduated from high school
2. Agreed to provide verification of regular attendance in the post-secondary course(s)
3. Enrolled at Alcona H.S. and completed the dual enrollment eligibility process
4. Earned a qualifying score in a related area on the PSAT, EXPLORE, PLAN, ACT, SAT, Compass and Accuplacer or MME
5. The course is academic as determined by Alcona Community Schools
6. The course is offered by a post-secondary institution during the Alcona Community School District’s regular school year
7. The course will apply toward satisfaction of a post-secondary program
8. The course is other than a hobby, craft, recreational, physical education, theology, divinity, or religious education course
9. Students have an option of taking a Dual Enrollment class for credit or a letter grade. The student must declare before they begin the class which grading system they choose.

### **All dual enrollment candidates need to follow these guidelines:**

1. All students are responsible for their own transportation.
2. All students are responsible for developing their total schedules such that the college course will not interfere with or take time from their high school courses.
3. AHS students may take appropriate college courses for both high school and college credit for which they may not meet the M.M.C. criteria *if* they pay for all costs.
4. If a dual enrollment course is dropped after the drop period, the student may have to reimburse Alcona Community Schools for the course tuition.
5. A dropped college course must be *officially* dropped by both the college and AHS. Failure to do so will result in receiving a failing grade instead of a drop.

## **Minimum Dual Enrollment Qualifying Scores**

There are no state approved scores for Accuplacer. Accuplacer qualifying scores are typically specific to an Institution of Higher Education (IHE). In cases where Accuplacer scores will be used, it is best to contact the IHE to see what scores they accept.

## **Early College Opportunities**

A student may apply in the spring of their sophomore year for the Early College Program. A student who decides to be a part of the Early College Program is committing to a 5th year of High School. An Early College student will complete their senior math requirement in their 5th year. The 10 course limit for Dual Enrollment students does not apply to Early College students. A student must complete one of the following options to be an Early College Graduate:

Graduation as an Early College student can be granted in one of the following ways:

1. Earning an Associates Degree
2. Earning a professional certificate (LPN, Welding, etc)
3. Earning 60 college credits
4. Earning the right to begin a certified apprenticeship
5. Earning a MEMCA certificate - a MEMCA certificate requires completion of MMC curriculum, completing the approved EMC curriculum, 15 college credits, and one of the following: 100 hours of verified community service, 40 hours of verified career exploration (job shadowing, clinicals, internship, etc), or a combination of the two that equals 70+ hours.

\*Students who participate in the Early College Program do not graduate until the end of their 5th year.

Therefore, class rankings, scholarship applications, college applications, etc are completed in the 5th year.

\*\*Students who participate in the Early College Program may participate in senior activities such as prom in their 4th year, with the exception of graduation. Early College students are expected to participate and be recognized in both their 4th and 5th year graduation ceremonies.

## **CREDIT RECOVERY**

In certain situations a student may find he/she lacks the required credits for graduation from Alcona High School. Students must take all "required" classes at Alcona High School if they can be scheduled during the regular school day. Any exception to this policy must be approved by the principal. Students may earn credits in summer school, correspondence classes, or online classes outside the school day to make up deficient credits. Students may take an Academic Achievement hour for assistance with credit recovery courses at the discretion of the principal. For more information see the principal.

## **CHANGES IN STUDENT SCHEDULES**

Changes in student schedules after the start of the school year will be made only with the consent of the principal. Based on the mutual consent of the teacher and principal, exceptions will be made for students who can and should be placed in corresponding courses within a department (i.e. change from Advanced Algebra to Algebra). Any other exceptions need to be approved by the principal.

**REPEAT POLICY** - A class may be repeated if the student wants to improve their understanding. The highest grade received is calculated in the GPA. Credit can only be earned once.

## **INCOMPLETE GRADES**

At the end of each semester, students who have received a grade of INCOMPLETE (I) will have two weeks (10 school days after the distribution date of report cards in which to complete and submit to their instructor the

required course work. The instructor will notify the High School secretary that the required work has been submitted. After the instructor has evaluated the work, a grade change will be reported to the High School secretary. Those students who do not submit the required work within the two week time period will automatically have the INCOMPLETE (I) changed to FAILING (F).

Any student who feels that special circumstances warrant an additional two-week extension must submit written request, which has been signed by the instructor within five (5) days after the distribution date of report cards.

## **ACADEMIC SUCCESS**

### **ACADEMIC ACHIEVEMENT (9-12)**

#### **ACADEMIC SUPPORT SE (9-12)**

A wide variety of instructional methods, educational services, or school resources provided to students in an effort to help them accelerate their learning progress, catch up with their peers, meet learning standards, or generally succeed in school.

### **LIFE CENTERED EDUCATION (9-12)**

Research-based and developed by a CEC-led task force of leading transition professionals, the LCE curriculum is designed for students who have learning disabilities, mild intellectual disabilities, autism spectrum disorders, and students whose ability to live independently is in question. LCE identifies three critical domains for adult living in the 21st century - daily living skills, self determination and interpersonal skills, and employment skills.

### **Seminar (10-12)**

This class is designed to add support for dual enrolled students to build on skills and provide communication on important dates and upcoming events. There will be times that representatives from various colleges will present information to help students be successful in college level courses.

## **ENGLISH**

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### **ENGLISH I (9)**

The goals of English I are: an expanded vocabulary, practice in writing and revising compositions, practice in listening and speaking, the continued study of basic grammar, and an understanding of literary forms such as short stories, poems, nonfiction, plays, and novels.

### **ENGLISH II (10)**

The goals of English II are: further expanded vocabulary, continued study of basic grammar, practice in listening and speaking, and practice in interpretation and analysis of literature through composition, and further study to build understanding of short stories, poems, nonfiction, and novels.

### **ENGLISH III (11)**

English III surveys American literature to develop knowledge and understanding of literary periods and concepts such as Romanticism, Realism, Naturalism, and Multiculturalism; the course also examines the ways in which literature reflects the history and society of the times in which it was written. Students continue practicing analysis and interpretation of literature through composition, demonstrating and deepening their understanding of grammar and usage.

### **ENGLISH IV (12)**

English IV surveys British Literature to develop knowledge and understanding of the discourse of that region and genre. Students will also study and analyze documentaries, political/editorial cartoons, screenplays, and memoirs. Students will utilize various forms of public speaking and research and will be able to recognize, practice and use a variety of speaking techniques including persuasion, humor and demonstration. They will



also learn and practice research techniques. English IV is designed for seniors, but juniors may take the class with permission of the *instructor and Principal*.

### **YEARBOOK/BROADCASTING (9-12)**

Utilizing the writing process, students will develop their skills as they apply them to the development of content for the Yearbook and other school-related publications. All students will write persuasive, descriptive and humorous pieces, as well as other traditional forms as required to create and develop necessary content. Principles of layout and design will be covered, as will the importance of effective and engaging written communication.

### **CREATIVE WRITING/YEARBOOK (9-12)**

Individual development of writing skills will be the focus of this class, and students will create written works in a variety of forms and genres. By the end of this class, students will be able to:

- Identify, compare, and contrast specific writing genres
- Analyze and apply elements of the writing craft
- Identify and utilize each part of the writing process
- Evaluate and critique work in collaborative and individualized settings
- Use the processes of revision, editing, and rewriting to improve upon existing pieces

### **DRAMATIZATION of LITERATURE (9-12)**

This course focuses on the personal, intellectual, and social growth of the student through the exploration of literature: both in film and on the stage. With work in improvisation, both in small and large groups, students gain confidence as they explore and communicate ideas, experiences, and feelings in a range of dramatic forms. Examples include miming, dramatization, choral speech, and readers' theatre. Students will also receive basic instruction in sound and lighting techniques. On-stage public performances may be created and performed before a live audience. Additionally, a film based literature component may be utilized incorporating various genres, including novel-based feature films and documentaries. Middle school students may be considered as an advanced placement **ONLY** with permission from the instructor.

## **MATHEMATICS**

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### **APPLIED MATH (9) SpE**

A Special Education Math course for students with an IEP who need additional preparation prior to taking Algebra or Pre-Algebra..

### **MATH INTERVENTION (9-12)**

Math Intervention is a course designed to integrate proven research-based strategies that are effective in increasing achievement for struggling learners. Students will use hands-on exploration, visual clarification, and written expression with symbols. Students will often work in pairs, small groups, and practice math skills using computer programs.

### **ALGEBRA I Concepts (9-10)**

Algebra I Concepts course formalize and extend the mathematics that students learned in the middle grades. Units will deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. on the power standards . The course will earn students an Algebra I credit and will set them up for success in future math courses. The course helps students develop good mathematical study skills and learning strategies.

### **ALGEBRA I (9-10)**

Algebra I builds on the increasingly generalized approach to the study of functions and representations begun in the middle grades. This is done by broadening the study of linear relationships to include piecewise functions such as absolute value and greatest integer, systems of equations with three unknowns, formalized function notation and recursive representations, and the development of bivariate data analysis topics such as linear regression and correlation. In addition, their knowledge of exponential and quadratic function families is extended and deepened with the inclusion of topics such as rules of exponentiation (including rational exponents), introduction to logarithmic patterns as the inverse of exponential equations, and use of standard and vertex forms for quadratic equations. Students will also develop their knowledge of power (including roots, cubics, and quartics) and polynomial patterns of change and the applications they model.

Algebra I also draws upon and connects to topics related to number and geometry by including the formalized study of the real number system and its properties, and by introducing elementary number theory. Finally, Algebra I expands the number domain from real to complex numbers, opening up the opportunity to study operations over the set of complex numbers, vector representations, and applications.

Students will experience mathematics as the study of mathematical patterns and relationships and as a language that allows us to make sense of mathematical symbols. Finally, students will develop an understanding that algebraic thinking is an accessible and powerful tool that can be used to model and solve real-world problems.

## **GEOMETRY (9-11)**

Geometry builds on a number of key geometric topics developed in the middle grades, namely relationships between angles, triangles, quadrilaterals, circles, and simple three-dimensional shapes. It is expected that students beginning geometry are able to recognize, classify, and apply properties of simple geometric shapes, know and apply basic similarity and congruence theorems, understand simple constructions with a compass and straightedge, and find area and volume of basic shapes.

Students in geometry further develop analytic and spatial reasoning. They will apply what they know about two-dimensional figures to three-dimensional figures in real-world contexts, building spatial visualization skills and deepening their understanding of shape and shape relationships. Geometry includes a study of right triangle trigonometry that is developed through similarity relationships. These topics allow for many rich real-world problems to help students expand geometric reasoning skills. It is critical that connections are made from algebraic reasoning to geometric situations. Connections between transformations of linear and quadratic functions to geometric transformations should be made. Earlier work in linear functions and coordinate graphing leads into coordinate geometry.

The study of formal logic and proof helps students to understand the axiomatic system that underlies mathematics through the presentation and development of postulates, definitions, and theorems. It is essential that students develop deductive reasoning skills that can be applied to both mathematical and real-world problem contexts.

Throughout geometry, students will experience geometric thinking and reasoning techniques as accessible and powerful tools that can be used to explore the concept of mathematical proofs as well as to model and solve real-world problems.

## **GEOMETRY IN CONSTRUCTION      2 hour block**

**Prerequisite: Successful completion of Algebra I.**

(Course counts towards fulfillment of CTE Construction Technology)

The Geometry & Construction class is an alternative approach to learning geometry and at the same time learning woodworking and construction skills. This two-hour block course will be taught by a geometry teacher and construction technology teacher. Students will earn their required credit in geometry and will learn everything that is taught in the regular geometry class as well as an elective credit for the construction time in the block program. The course is recommended for students interested in engineering, architecture, construction management, interior design, landscape architecture, construction trades, and surveying. Students will learn: safety, problem solving, machine and tool use, and drawing interpretation.

- Have minimal or no previous construction experience
- Teaming is an essential component in the course and is required as part of the course
- Be exposed to practical skills in building and carpentry trades by constructing house building projects

- Use various alternative materials, in addition to wood
- Understand and explore the interdependence between algebra and geometry
- Learn core set of geometry facts
- Use coordinate geometry in the study of area, perimeter, volume, transformations, congruence, Pythagorean theorem, similar figures, trigonometry, quadrilateral properties, circle properties, logic, and functions

## **ALGEBRA II (10-12)**

The goal of Algebra II is to build upon the concepts taught in Algebra I and Geometry while adding new concepts to the students' repertoire of mathematics. In Algebra I, students studied the concept of functions in various forms such as linear, quadratic, polynomial, and exponential. Algebra II continues the study of exponential and logarithmic functions and further enlarges the catalog of function families to include rational and trigonometric functions. Algebra II will extend the numeric and logarithmic ideas of accuracy, error, sequences, and iteration. The topic of conic sections fuses algebra with geometry. Students will also extend their knowledge of univariate and bivariate statistical applications.

Students will gain an in-depth understanding of circular trigonometry and will also understand its connections to triangular trigonometry. Connections between trigonometric modeling of cyclic events and the concepts embedded within bivariate modeling with the proper use of statistical techniques will also be made.

Throughout Algebra I & II, students will experience mathematics generally, and algebra in particular, not only as the theoretical study of mathematical patterns and relationships but also as a language that allows us to make sense of mathematical symbols. Finally, students will develop an understanding that algebraic thinking is an accessible and powerful tool that can be used to model and solve real-world problems.

## **ALGEBRA 2 CONCEPTS (11-12)**

The goal of Algebra II is to build upon the concepts taught in Algebra I and Geometry while adding new concepts to the students' repertoire of mathematics. In Algebra I, students studied the concept of functions in various forms such as linear, quadratic, polynomial, and exponential. Algebra II continues the study of exponential and logarithmic functions and further enlarges the catalog of function families to include rational and trigonometric functions. Algebra II will extend the numeric and logarithmic ideas of accuracy, error, sequences, and iteration. The topic of conic sections fuses algebra with geometry. Students will also extend their knowledge of univariate and bivariate statistical applications

## **PRE CALCULUS (11-12)**

Calculus is a powerful, useful, and versatile branch of mathematics. While the core ideas of calculus (derivatives and integrals) are not hard to understand, calculus is a demanding subject because it requires a broad and thorough background of algebra and functions. Study of the topics, concepts, and procedures of pre-calculus is very strongly recommended for all college-bound students. These topics, concepts, and procedures are prerequisites for many college programs in science, engineering, medicine, and business.

Pre-calculus is the preparation for calculus. The study of the topics, concepts, and procedures of pre-calculus deepens students' understanding of algebra and extends their ability to apply algebra concepts and procedures at higher conceptual levels, as a tool, and in the study of other subjects. The theory and applications of trigonometry and functions are developed in depth. New mathematical tools, such as vectors, matrices, logarithms, higher degree equations, higher degree inequalities, binomial expansion, and polar coordinates, are introduced, with an eye toward modeling and solving real-world problems. Also covered is the rate of change of functions, logarithms, limits, differentiation, and integration of algebraic and trigonometric functions and applications.

## **MATHEMATICS OF SMALL BUSINESS (9-12)**

This class is designed to give students in grades 8-12 some career based exposure to the world of marketing and retail as they run a school store and cafe. Fundamental retail practices and the math involved, as well as work-based skills will be the focus of this class. Students will cover the 4 P's: Product, pricing, placement and

promotion, along with career readiness topics like ethics and workplace skills. Some non-school hours may be involved, with the sales of school store products, at home sporting events and other evening activities. Online e-tailing is another facet of this class, students will explore.

### **PERSONAL FINANCE (11-12)**

Students learn how to navigate the financial decisions they must face and to make informed decisions relating to career exploration, budgeting, banking, credit, insurance, spending, financing postsecondary education, taxes, saving and investing, buying/leasing a vehicle, and living independently. They also learn the importance of investing in themselves in order to gain the knowledge and skills valued in the marketplace. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship, more effective participation in the workforce, and career success.

## **PHYSICAL EDUCATION**

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### **HEALTH-PHYSICAL EDUCATION (9)**

The course emphasis is on health related physical fitness and related concepts. The class will emphasize individual fitness and health and the principles and understandings for the present and future application. Numerous health and teenage living concepts will be presented and studied, with the emphasis on CPR, smoking, drugs, alcohol, nutrition, weight control, posture and back problems, and other diseases. Numerous health and teenage living concepts will be studied, with the emphasis on reproductive health, stress, sexual assault, child abuse, death and dying, and suicide.

NOTE: all 9th grade students should take Health-Physical Education. The only exception will be for students with scheduling conflicts. For that exception, students may take the course in the 10th grade with approval of the Principal and PE Chairperson.

### **FITNESS FOR LIFE (10-12)**

This course is designed to give students the opportunity to learn routines and training techniques used for achieving optimal physical fitness. Students will benefit from comprehensive weight training and cardio-respiratory endurance activities. Students will learn basic aerobic steps as well as simple weight training combinations. Course includes both video workouts and activity.

### **WEIGHT TRAINING/ADVANCED SPORT (10-12)**

This course is designed to give students the opportunity to learn weight training concepts and techniques used for obtaining optimal physical fitness. Students will benefit from comprehensive weight training and cardio respiratory endurance activities through various sports. Students will learn the basic fundamentals of weight training, strength training, aerobic training, and overall fitness training and conditioning. Students will be empowered to make wise choices, meet challenges, and develop positives behaviors in fitness, wellness, and movement activity for a lifetime.

## **SCIENCE**

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### **INTRO to PHYSICS (9-12)**

Using the Michigan Core Curriculum objectives and goals, the class will prepare students for the Science component of the State of Michigan High School Test. This will include the study of the following topics: motion, forces, work and energy, heat and temperature, waves, sound and light, etc. This course is a comprehensive college-preparatory course designed for those students planning to enter the area of science and engineering. Emphasis is placed on mathematical relationships that exist in the physical world.

### **BIOLOGY (9-12)**

Biological content information (state science core curriculum) will be presented to promote student literacy, comprehension and increased speaking and writing efficiencies. Scientific activities will be provided which allow students to construct and use science knowledge and skills, and which actively engage the learner in scientific investigation and the creation of new ideas.

The course content to be investigated and analyzed is as follows: Plant and animal cells-structure and function; osmosis and diffusion; mitosis and meiosis; principles of heredity and genetics; diversity of life, kingdom classification; protist, monera, fungi, plant, and animal; bacteria, virus, disease; life cycles of organisms; anatomy and physiology of plant and animal systems; ecology of plants and animals; and energy use.

### **ANATOMY & PHYSIOLOGY (10-12)**

Anatomy & Physiology introduces students to the intricacies of the human body in health and disease. This course serves as a forum for the application of basic science concepts to the study of the human body and facilitates the development and enhancement of problem-solving and critical-thinking skills. The course provides a hands-on, laboratory-based class allowing the student to make an in-depth analysis of human anatomy and physiology. Students study major systems of the body, health and nutrition, disease processes, and explore career opportunities in health care. This course is especially beneficial for students who wish to pursue careers in medicine, dentistry, physical therapy, and nursing and other allied health sciences.

### **CHEMISTRY I (11-12)**

Students explore the fundamental principles of chemistry which characterize the properties of matter and how it reacts. Computer-based and traditional laboratory techniques are used to obtain, organize and analyze data. Conclusions are developed using both qualitative and quantitative procedures. Topics include, but are not limited to: measurement, atomic structure, bonding, gas laws, properties of liquids and solids, solutions, stoichiometry, reactions, and nomenclature

Main Goals: The main goal of this program is to provide a solid foundation in the study of matter and its changes. Through many activities students will demonstrate how theory is applicable in laboratory situations. All students will develop good methods of problem solving and proper laboratory technique

### **CHEMISTRY II (11-12) - Advanced Chemistry**

This course provides the opportunity to develop knowledge and understanding about the relationships between the structure and properties of matter and the interaction of matter and energy. Units of study include: matter and its changes, atomic structure, chemical composition, nomenclature, reactions, stoichiometry, gas laws, periodicity, bonding, molecular geometry, and thermochemistry. Laboratory activities reinforce concepts and principles presented in the course.

As an advanced course, this course goes beyond the curriculum expectations of a standard course offering by increasing the depth and complexity. Students are engaged in dynamic, high-level learning. The pace of an advanced course may be faster than that of a —standard course.

### **COMPUTER SCIENCE PRINCIPLES (AP) (11-12)**

Computer Science Principles is a course designed to prepare students who are new to computer science for the AP CS Principles exam. The course covers many topics including the Internet, Big Data and Privacy, and Programming and Algorithms.

### **STEM (9-12)**

This course will expose students to a wide array of Science, Technology, Engineering, and Math through a hands on experience. The major focus of the course is to expose students to design process, research, analysis, teamwork, communication methods, global and human impacts, engineering standards, marketing, and technical documentation.

## **AGRI-SCIENCE/NATURAL RESOURCES**

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### **BIOLOGY IN AGRISCIENCE (9)**

Biology in Agriscience involves the scientific study of living organisms (both plant and animal) with a focus on agriscience and natural resources. It fulfills a high school science credit and is the first-year course in a four-year sequence of course offerings in the Alcona Agriscience Program. The course is aimed to emphasize the role Biology plays in today's agricultural and natural resources system. Classroom work will be supplemented with experiences working in the Agriscience Shop and FFA opportunities. Students will be required to participate in field trips and tours of local farm facilities, farm fields, and other various agriscience related sites. Included will be an introduction of the FFA as a component of the Agriscience program.

\*\*\*Students enrolling in this course are expected to join FFA and participate in FFA activities.

### **SERVICE LEARNING THROUGH ENVIRONMENTAL SCIENCE( 10-12)**

Service Learning through Environmental Science focuses on exploring community projects and how the relationships of soil, water, fish, wildlife, and forest resources in our environment are related to such projects. Management, conservation, and preservation of these natural resources will be extensively discussed and studied in this class. We will study the biological, physical, and social aspects of the environment and environmental issues. This course fulfills a high school science credit and is one of the second year course options available to students in a four-year sequence of course offerings in the Alcona Agriscience Program. Classroom work will be supplemented with experiences working in the Agriscience Shop, the Community Garden and FFA opportunities. Students will be required to participate in field trips and tours of local lakes, rivers, woodlots and farm facilities.

\*\*\*Students enrolling in this course are expected to join FFA and participate in FFA activities.

### **AGRICULTURAL MECHANICS AND SUSTAINABILITY (10-12)**

Agricultural Mechanics and Sustainability gives students the opportunity to become familiar with the operation, function and principles related to agricultural machinery and its operations; all the while emphasizing the sustainability and conservation of resources related to the use of such machinery in the agricultural and natural resources industries. This course fulfills a high school science credit and is one of the second year course options available to students in a four-year sequence of course offerings in the Alcona Agriscience Program. The operation of equipment, welders, power tools and hand tools will be expected on a daily basis – with this expectation students will be required to dress in appropriate attire to work with such equipment. Themes in this course will consist of small engine mechanics, welding, tractor safety & operation, construction principles, biodiesel production, alternative energy solutions, soil conservation and natural resource use. A component of this course is for students to develop and manage a project which serves as a Supervised Agricultural Experience (SAE).

\*\*\*Students enrolling in this course are expected to join FFA and participate in FFA activities.

### **ADVANCED AGRISCIENCE (11-12)**

Advanced Agriscience provides students awesome hands-on experiential learning opportunities. Students will learn about tree identification, forestry, aquaculture, livestock care, plant and crop management, and maple syrup production. Hands-on experiences through program projects such as, woodlots and the Alcona FFA's maple syrup production operation will take learning out of the classroom into real life scenarios. The topics of focus in this class and its nature toward hands-on learning will allow students to take away practical skills that will familiarize them with forestry related careers and positions.

Students in this class will have opportunities to improve leadership, personal growth and practical skills through participation in the Alcona FFA Chapter.

\*\*\*Students enrolling in this course are required to join the Alcona FFA Chapter and participate in FFA activities. Such activities include monthly meetings, Leadership Contests, Agricultural Skills Contests, tree planting, maple syrup production, and other various opportunities.

### **AGRICULTURAL LEADERSHIP AND PERSONAL DEVELOPMENT (11-12)**

*Agricultural Leadership and Personal Development* provides students an independent study opportunity to study and develop skills of leadership, citizenship, and communication necessary to participate in agricultural and community organizations and to become contributing members of society. The course will emphasize communication skills, leadership qualities, problem solving and decision-making, goal setting, self-concepts, school-to-work transition skills and personal financial management. Students will be required to participate in field trips and tours of local businesses, schools, extension offices, and other locations. A primary component of this course is for students to develop and manage their own project which serves as a Supervised Agricultural Experience (SAE). All students will be expected to develop and manage their own SAE.

\*\*\*Students enrolling in this course are expected to join FFA and participate in FFA activities. FFA participation and student's organization and completion of a Supervised Agricultural Experience project will be a component of the final evaluation.

## **SOCIAL STUDIES**

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### **US HISTORY/GEOGRAPHY (9-12)**

This course will review America's past from pre-civilization to 1865, then primarily focus on American history from 1865 to current times. Integrated into the course will be studies of various regional cultural/governmental/geographical/economic phenomena, expanded into collated national interaction within a chronological sequence. This objective will be achieved through the use of primary sources, technological multimedia tools, textbooks, verbal/visual interaction, cooperative group work, and extensive writing/speaking communication.

Woven into the fabric of the curriculum is the development of necessary life skills, which develop articulate social, analytical, and critical thinking skills. Students will process/research presented information on American historical/cultural/governmental/geographical/economic phenomena from several different ethnic points of view and develop ethical, informed opinions on the actions/decisions/contributions of American ancestors. All of the above will cover the required Michigan High School Educational Standards and Benchmarks incorporating techniques that will be useful on the M.E.A.P exam in addition to relating covered information to current events.

### **US HISTORY CONCEPTS (9-12)**

This course will review America's past from pre-civilization to 1865, then primarily focus on American history from 1865 to current times. Integrated into the course will be studies of various regional cultural/governmental/geographical/economic phenomena, expanded into collated national interaction within a chronological sequence. The objective will be achieved through the use of primary sources, technological multimedia tools, and extensive visual and hands on experiences.

### **ECONOMICS (10-12) (1 semester)**

This course is designed to demonstrate how the United States attempts to meet the needs of its people with limited natural, capital, and human resources. The block will be divided between a study of microeconomics and macroeconomics. Topics covered will include comparison of economic systems, types of business organizations, the role of government, income distribution, tools to measure the economy, monetary policy, world trade, etc.

### **GOVERNMENT (10-12) (1 semester)**

This course will include the study of the political heritage of the United States and Michigan, the national and state constitutions, and political participation. Topics examined include political parties and ideologies; voting and elections; interest groups and lobbying; civil rights; and the functions and responsibilities of the legislative, executive and judicial branches.

### **WORLD HISTORY/GEOGRAPHY (9-11)**

This course is designed to offer students a basic background in world history by reviewing the major events that have shaped our modern world. Major regions of the world will be studied such as China, Africa, Europe, former Soviet Union, the Americas, and others. Along with the early events of our world, modern issues will be extremely

important to this course. Issues such as world militarism, treaty systems, economics, current conflicts, and changes in our global patterns are examples of a few issues to be reviewed. Work on group and individual projects, map work, research skills, awareness of regional and physical geography, clashes communist and non-communist goals, developing countries, and growing economic interdependence of the world are but a few of the skills and knowledge outcomes of world history.

### **PSYCHOLOGY (10-12)**

This course provides a general survey of psychological theories, principles, and research. Topics include: biological foundations of behavior, sensation, perception, and abnormal psychology. An understanding of these behaviors and the processes, which influence them, is necessary for all for all of us to function in any society.

### **SOCIOLOGY (10-12)**

This course provides students an opportunity to define sociology, analyze the tools and techniques of sociology and understand sociological terminology. Also students explore the process of socialization; analyze types of groups and interactions among groups; analyze social institutions, their structures and functions; and analyze roles of people in various situations and relationships.

## **ART**

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### **ART & DESIGN (9-12)**

This class is designed for students who wish to develop an awareness of fine arts that may be utilized throughout life. Courses in the arts are now being required at most colleges for admission and graduation. Knowledge and application of the art fundamentals: form, line, shape, value, texture, color and space, along with perspective, will be experienced through various media and other art form exploration.

Students will experience a wide exploration of various drawing and painting media, additive and subtractive methods of three-dimensional modeling and sculpture.

### **ADVANCED ART & DESIGN (9-12)**

The course will involve in-depth projects and areas of study, which will promote the individual development of the art student. Careers in art as well as in-depth art history will be explored. Students will have the opportunity to explore areas of interest for a final comprehensive study. Students must show interest and ability in problem solving to be successful in meeting the course objectives. Students may wish to purchase additional consumable materials.

Students will select a project related to various areas of art that they wish to explore and create a portfolio piece for review towards college.

The coursework must include work in at least eight different media covering both two and three-dimensional projects. Selected students will create a slide portfolio of their work.

**NOTE:** Minimal supplies will be provided for certain projects, while other projects may require additional monies established and agreed upon by the student and instructor to defray excessive individual expenditures.

### **PAINTING 2 and 3 (9-12)**

This introductory painting class will offer a wide variety of painting techniques taught through the application of the principles and elements of art. The principles and elements of art are the basis for all artwork and are fundamental to the composition of any work done in the classroom. Paint will provide a challenging and exciting medium with which students can explore their talents. Paintings will be completed in acrylic, tempera, watercolor, and oils. Portfolios of all finished work will be kept for purposes of checking progress and evaluation. Students may wish to purchase additional consumable materials.



### **3-D ART**

The course combines glass work, ceramics and sculpture in order to provide an opportunity for students to explore different three-dimensional art experiences.

### **SENIOR ART & DESIGN STUDIO**

Prerequisite: Art & Design & Instructor Approval

This course combines a variety of art mediums including drawing, sculpture, painting, ceramics, photography, jewelry design, and others. Course includes various mathematical concepts and may be used to meet the senior math requirement for graduation. This course requires the student to be highly independent and individually motivated. Instructor approval mandatory.

## **INSTRUMENTAL MUSIC, BAND AND CHOIR**

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### **HIGH SCHOOL BAND (9-12)**

Performance-based course for students to work toward mastery in instrumental music in an ensemble setting. Practice outside the school day will be required.

### **HIGH SCHOOL CHOIR (9-12)**

Performance-based course for students to work toward mastery in vocal music in an ensemble setting. Practice outside the school day will be required.

### **MARCHING BAND (9-12)**

Marching Band is a performance-based class which is co-curricular in nature combining band and Physical Education. With successful completion of this course students will also fulfill their semester of PE required by the state. Practice outside the school day will be required.

### **CONCERT BAND (9-12)**

Concert Band is the entry level instrumental band ensemble. Basic performance skills and fundamentals are addressed. Selected music is used to enhance and improve upon these basic performing skills. Students will learn and review major scales/rudiments/arpeggios as they relate to their instrument along with basic rhythmic skills, tone quality, music terminology, and history as it relates to the music being performed. Students are expected to demonstrate proficiency in major scales, show respect for the music and each other, and follow the instructions of the conductor. Daily practice is expected of all band students.

## **INDUSTRIAL TECHNOLOGY**

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### **BEGINNING WOODWORKING (9-12)**

This course introduces students to the benefits of hands-on learning, with a strong emphasis put on critical thinking, problem solving, and safety. Using wood as the media, students will acquire important visual/spatial and mechanical skills as they create a prototype. An important knowledge base of how basic machines work and how plans are interpreted to create a product will be gained. The class will also include application of basic addition, subtraction, multiplication, division, applied geometry and the use of metric measurement as well as the customary units of measurement.

### **ADVANCED WOODWORKING (9-12)**

During Advanced Woodworking students will expand their knowledge in furniture and cabinet making by taking a project from the design phase all the way to a finished project. Students will further develop their use of hand tools, knowledge of the major machinery, and its safe operation. Students will be expected to achieve high quality

craftsmanship and demonstrate above average effort. Careers involving all areas of woodworking as well as other areas of industrial technology will be explored. Students taking this class multiple semesters will be expected to challenge themselves with a more involved project each time through the course. First year woodworking students can take this course, but only with instructor approval.

### **COMPUTER AIDED DRAFTING (9-12)**

This course introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the operating system (Microsoft Windows) that enables the equipment to function as a unit. The course shows how to use Turbo CAD to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions, and text. Students will use display and editing techniques as well to obtain information about their drawings and work with drawing files. This course also introduces recommended drafting standards for students to use for properly preparing drawings with AutoCAD.

### **Computer Technician (10-12)**

Students learn to repair, service and troubleshoot personal computers and computer-related equipment. Install and configure operating systems and application software, including networking basics, installation, configuration and troubleshooting of hardware peripherals and protocols.

## **BUSINESS MARKETING**

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### **INTRODUCTION TO MARKETING AND MANAGEMENT (9-12)**

Introduction to Marketing introduces students to the dynamic processes and activities in marketing. The course develops student understanding and skills in the functional areas of marketing, as well as business law, communication skills, customer relations, economics, human resources management, and operations. Current technology will be used to acquire information and to complete activities. Throughout the course, students are presented with ethical dilemmas and problem-solving situations for which they must apply academic and critical-thinking skills. This course meets the Economics graduation requirement.

### **ENTREPRENEURSHIP (10-12)**

Prerequisite: Introduction to Marketing

Entrepreneurship introduces students to a wide array of entrepreneurial concepts and skills, including the role of entrepreneurship in our economy, entrepreneurial discovery processes, ideation, and preliminary start-up venture planning. Students also develop an appreciation for marketing's pivotal role in the development and success of a new business. They become acquainted with channel management, pricing, product/service management, and promotion. Students conduct thorough market planning for their ventures: selecting target markets; conducting market, SWOT, and competitive analyses; forecasting sales; setting marketing goals and objectives; selecting marketing metrics; and setting a marketing budget. The capstone activity in the course is the development of detailed marketing plans for students' start-up businesses. Throughout the course, students are presented with ethical dilemmas and problem-solving situations for which they must apply academic and critical-thinking skills. This course meets the Senior Math Requirement.

### **INTRODUCTION TO BUSINESS MANAGEMENT (11-12)**

Prerequisite: Entrepreneurship

Introduction to Management expands student understanding of management. It exposes students to several types of management, including customer relationship management, human resources management, knowledge management, information management, project management, quality management, risk management, and strategic management. Business law, communication skills, economics, operations, and professional development are also stressed throughout the course. Current technology will be used to acquire information and to complete activities. Throughout the course, students are presented with ethical dilemmas and problem-solving situations for which they must apply academic and critical-thinking skills. This course meets the Senior Math Requirement.

## **BUSINESS LEADERSHIP (SCHOOL STORE MANAGEMENT) (12)**

Prerequisite: Introduction to Business Management and Instructor Approval

Students will use the knowledge and skills gleaned from the previous three courses (Introduction to Marketing, Entrepreneurship, and Introduction to Business Management) to effectively manage and run the school store. Students will rotate in areas of the common functional areas in business which include sales, marketing, finance and accounting, customer service, human resources, research and development, production, and distribution. This course meets the Senior Math Requirement.

## **PERSONAL FINANCE (11-12)**

Students learn how to navigate the financial decisions they must face and to make informed decisions relating to career exploration, budgeting, banking, credit, insurance, spending, financing postsecondary education, taxes, saving and investing, buying/leasing a vehicle, and living independently. They also learn the importance of investing in themselves in order to gain the knowledge and skills valued in the marketplace. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship, more effective participation in the workforce, and career success. This course meets the Senior Math Requirement.

## **WORLD LANGUAGE**

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### **INTRODUCTION TO SPANISH**

Introduction to Spanish will serve as an introduction to Spanish developing foreign language skills. The emphasis is on true cross-cultural communication, grammatical structures, vocabulary and verb conjugations in the seven indicative tenses, and working towards fluency. Each class will ideally allow you the opportunity to practice your listening, speaking, reading and writing skills.

### **WORLD CULTURE AND CONVERSATION (9-12)**

Students will study the language and culture of various countries around the world including topics such as weather, family, food, clothes and free-time activities. This class may count for the world language or world language equivalent requirement.

### **SPANISH I (9-12)**

Spanish I students will learn to communicate in Spanish on a variety of topics. Communication skills of speaking, listening reading and writing will be emphasized in various ways. Student will study the present tense of verbs while acquiring vocabulary on many topics such as weather, family, food, clothes and free-time activities. In addition to the language study, students will also be introduced to Hispanic culture and the Spanish-speaking world.

### **SPANISH II (9-12)**

Spanish II continues to present the Spanish language and Hispanic culture. Students continue developing communicative skills in reading, writing, speaking and listening through additional vocabulary acquisition to increase proficiency. Students also learn to use past, present and future tenses of verbs. Students explore Hispanic culture in Spain as well as in Mexico and Latin America and look at job opportunities with world language skills.

### **SPANISH III (9-12)**

The third year course is designed to review and reinforce what was learned in courses I and II while learning more grammar and vocabulary. Special emphasis is placed on learning to use and understand the language in real-life situations. In addition, students read authentic literature and learn strategies which make reading easier and more enjoyable. A variety of media in the language are used to integrate language and culture. Students demonstrate

greater confidence and fluency in speaking and writing the language. Daily oral participation in class, in addition to oral and written evaluation, will determine student grades at this level.

### **SPANISH IV (9-12)**

The fourth year course is designed to review and reinforce what was learned in previous courses while learning more grammar and vocabulary. Special emphasis is placed on learning to use and understand the language in real-life situations. In addition, students read authentic literature and learn strategies which make reading easier and more enjoyable. A variety of media in the language are used to integrate language and culture. Students demonstrate greater confidence and fluency in speaking and writing the language. Daily oral participation in class, in addition to oral and written evaluation, will determine student grades at this level.

## **CAREER & TECHNICAL EDUCATION (CTE) AT ALPENA HIGH SCHOOL**

### **HEALTH CARE OCCUPATIONS CLUSTER Part A (11-12)**

This course meets the Math Related Requirement when taken in a student's senior year, can count for the 3rd elective Science credit requirement, and can be substituted for the 2nd year of World Language requirement. The fastest growing section of the job market is in Health Care. This course is for students considering post-secondary programs such as physician, physician assistant, nursing, nurse aide, radiology, physical therapy, occupational therapy, pharmacy, dietitian or other health related careers. You will be introduced to a broad base of knowledge and skills such as basic medical terminology, growth and development, nutrition, roles of health care careers, job shadowing at community sites and earn safety certification. Students have the option to participate in HOSA.

Prerequisite: Science grade of "C" or better and completed biology. Students can earn articulated college credit with Ferris State University.

### **HEALTH CARE OCCUPATIONS CLUSTER Part B (11-12)**

Must pass Part A, satisfies Health requirement

This is a continuation of section A. The class will cover vital signs, anatomy and physiology, First Aid and CPR certifications, patient care and monitoring and job ready skills. Numerous skills will be practiced with an option of obtaining a Nurse Assistant State Certification at course completion. Students may use the Nurse Assistant certification as a career, summer job or a college job. The job outlook is very high, as are the employment rates. Working as a Nurse Assistant satisfies the Nurse Practitioner, Physician Assistant, Physical Therapist and Medical degree requirements of 2000+ patient care hours. This class will focus on getting students ready to take the State written and performance evaluations. Students *may* choose to take the Certification tests after completion of the class.

### **AMP UP! (Algebra & Manufacturing) (9-10)**

(Course counts towards fulfillment of the Visual, Performing and Applied Arts Requirement)

(Course counts towards fulfillment of CTE Woodworking Technology)

AMP UP! is an alternative approach to learning concepts taught in Algebra I and at the same time learn skills in Career & Technical Education. This course will be co-taught by a math teacher and Career & Technical Education teacher and students will apply Algebra I skills to project based lessons and labs that put Algebra theory into practice. Students will design and manufacture products and learn the business essentials of production. You will use state-of-the-art equipment and tools and work with woods, metals and plastics to complete class and individual projects. This class is for you if you want to find out more about engineering, manufacturing, marketing, drafting, design and construction technology or if you want a hands-on math learning experience.

Students completing this class will be ready for the rigor of Geometry and Algebra II, The same concepts taught in regular Algebra I will be taught and applied in AMP UP! Prerequisite: Students must fill out an application interest card and will be selected according to criteria for the limited number of seats available. Further information is available from your counselor.

### **AUTOMOTIVE TECHNOLOGY I (11-12)**

This course meets the Math Related Requirement when taken in a student's senior year. (Course counts towards fulfillment of the Visual, Performing and Applied Arts Requirement)  
This is a two-year sequence for 11<sup>th</sup> and 12<sup>th</sup> grade students, which provides preparation for entry into the many fields of automotive industry. Each year begins with a unit on automotive maintenance, tool and equipment use and shop safety. Electrical systems and engine performance procedures are covered during the first year. Braking systems and engine repair are covered during the second year. Each unit is taught only every other year, making it quite important to enter the class as a junior. Seniors are welcome also. Students schedule jobs, order parts, write work orders, and deal with customer satisfaction. Basic computer skills are recommended because there is an online learning experience in the program. This class provides an excellent background for many college level automotive programs. College articulation agreements are in place for the following institutions:

### **WELDING TECHNOLOGY I (10-11-12)**

**This course meets the Math Related Requirement when taken in a student's senior year.**

(Course counts towards fulfillment of the Visual, Performing and Applied Arts Requirement)

This course is the first year of a two year welding program. The course will give the students a continuation from the intro to welding course. Students will strengthen their knowledge of welding processes and job management skills. Welding processes like Shielded Metal Arc Welding, Gas Metal Arc Welding, Gas Tungsten Arc Welding, Flux Core Arc Welding, Ox fuel Cutting and Plasma Arc Cutting. Classroom Skills will be Math Skills, Drafting, Blue Print Reading and Welding Theory. These skills will be needed as the student moves to the next level in welding the American Welding Society -Entry Level Welding Certification Program. **Prerequisite: For any sophomore to take Welding I, they must have completed Intro to Welding Technology AND get instructor permission. For juniors/seniors, there are no prerequisites. Juniors and Seniors must have a career interest in welding to take this Career & Technical Education course.**

### **WELDING TECHNOLOGY II A.W.S. Certification (11-12)**

**This course meets the Math Related Requirement when taken in a student's senior year.**

This course is designed to develop the welding skills of students who are planning to make welding a career. Students will be working on passing performance qualification test in SMAW, GMAW, FCAW, GTAW, OFC and PAC. Students will be required to pass all tests to the American Welding Society QC10 standards. Classroom requirements will be studying the welding theories of each of the welding processes and passing the required test to the AWS QC10 standards. With successful completion of the AWS Entry Level Welding Program the student will be ready for a College Welding Program or the World of Work as a WELDER. **Prerequisite: Students must have teacher approval to enroll in the American Welding Society Entry Level Welding Certification Program.**

### **CONSTRUCTION TECHNOLOGY II (11-12) & ADVANCED CONSTRUCTION TECHNOLOGY (12)**

Students must enroll in Construction Tech I before taking Construction Tech II.

**This course meets the Math Related Requirement when taken in a student's senior year.** (Course counts towards fulfillment of the Visual, Performing and Applied Arts Requirement) The **Construction Technology Program** is designed to prepare students for employment in the construction field. At Alpena High School students build a house from foundation to completion on location (offsite from Alpena High) and may assist with Habitat for Humanity builds and other community construction opportunities. When students have completed these classes, they are prepared to join the workforce as laborers, apprentices, and possibly trade people. Students are prepared to go on to college, university or trade school to further their education. You will learn to use the equipment and technology as it applies to laying blocks, framing, roofing, siding, trimming and finishing a structure. Safety is emphasized as well as blueprint reading and construction related math. At Alpena High School students build a house from foundation to completion on location (offsite from Alpena High). The complete course is a two-year sequence. This course meets high school graduation requirements for visual and performing arts and for a senior math related credit for all students graduating in the spring of 2011 or later. **Prerequisite: For any sophomore to take Construction Technology I, they must have completed Intro to Construction Technology, Woodworking, and instructor approval. For juniors/seniors, there are no prerequisites.**

## **WORK BASED LEARNING**

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### **WORK BASED EXPERIENCE (11-12)**

The Work-Based Learning experience is designed to build on skills acquired in coursework or up to two hours a day. This experience provides students with a combination of school-based preparation and supervised work experience. This experience is intended to help students acquire attitudes, skills, and knowledge for career and other life roles in real work settings. Goals of this experience include:

- Teach employability and technical skills
- Develop a sense of personal responsibility
- Explore career options
- Gain job specific skills
- Foster work-oriented relationships with adults
- Understand the relevance of and the application to academic learning
- Provide alignment with the student's career pathway and educational development plan

### **VIRTUAL LEARNING COURSE OFFERINGS (9-12)**

Success in online courses requires dedication and commitment to independent learning; as such, the following tools and resources may be helpful in a student's consideration of pursuing a course of study that includes online courses. The first is Michigan Virtual's [Online Learning Orientation Tool](#). "OLOT is a freely available self-paced learning tool designed to help students understand what online learning entails and introduce the skills and knowledge that are key to success...OLOT can help students better understand what to expect when participating in an online course and their level of preparedness" (Retrieved from: <http://olot.mivu.org/> on July 21, 2018).

Students (in collaboration with their parents, teachers, counselor, etc.) may also find it useful to use the following [Online Learner Readiness Rubric](#) to assess a student's readiness to participate in Online Learning. The rubric provides an evaluation scale for the following traits, skills and attributes: Technology Skills, Work & Study Habits, Learning Style, Technology/ Connectivity, Time Management, Interest/ Motivation, Reading/Writing Skills, and Support Services.

#### **Edgenuity**

Check the Edgenuity Virtual [Course catalog](#) to review their available courses. If interested in finding out more about possible online course enrollment options, please stop in to the High School Office for an application and Online Learning contract.

#### **Gen Net**

Check the [Catalog](#) to review their available courses. If interested in finding out more about possible online course enrollment options, please stop in to the High School Office for an application and Online Learning contract.

#### **Greenways Academy**

[Computer Science](#)

[Spanish](#)

[French 1A](#)

[French 1B](#)

#### **Keyboarding Applications (6-8)**

The class is a semester-long elective that teaches students keyboarding skills, technical skills, effective

communication skills, and productive work habits. In this course, students will learn about proper keyboarding technique. Once students have been introduced to keyboarding skill, lessons will include daily practice of those skills. Students will gain an understanding of computer hardware, operating systems, file management, and the Internet. In addition, they will apply their keyboarding skills and create a variety of business documents, including word processing documents and electronic presentations.

### **Principles of Coding (6-8)**

Principles of Coding is designed to introduce middle school students to the power of coding. Computer literacy has become just as important as reading and math literacy in the 21st Century. No matter what career students select, learning even the basics of coding and computers will benefit them. Additionally, every year there is a standing demand for 120,000 people who are trained in computer science. Jobs in this industry are growing at more than two times the national average of any other field.