

# OGEMAW HEIGHTS HIGH SCHOOL



## COURSE DESCRIPTION HANDBOOK 2021-2022

**Ogemaw Heights High School, unified in partnership with parents and community, provides high quality education. Offering rigorous and relevant programs along with diverse opportunities, we prepare students to become productive, responsible and resourceful members of the 21<sup>st</sup> century.**



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# **COURSE OF STUDY HANDBOOK**

## **OGEMAW HEIGHTS HIGH SCHOOL**

Principal ..... Mr. Benjamin Doan  
Assistant Principal ..... Mr. Will Robelli  
Curriculum Director ..... Mrs. Gail Hughey

Counselor students last name A-K ..... Ms. Marie Buccilli  
Counselor students last name L-Z ..... Mrs. Louise Hofer

This handbook of course descriptions has been compiled as an aid to students and parents in selecting a tentative course of study for the four years students are enrolled at Ogemaw Heights. A four-year plan will be developed in accordance with the student's academic background and interests. Planning for four years will help students develop a balanced schedule. Counselors and teachers are available to make recommendations as students develop and update their Education Development Plans (EDPs), which include their four-year education plans. The final decision will be made by the student, parent and counselor.

**PLEASE CHECK THE GRADUATION REQUIREMENTS ON PAGE 2**

### **N O T I C E**

The West Branch-Rose City Area School District will not discriminate against any person based on race, religion, color, national origin, sex, age, handicap, disability, height, weight, or marital status in its educational programs, services or activities. The Board reaffirms its long-standing policy of compliance with all applicable federal and state laws and regulations prohibiting discrimination.

Inquiries or complaints by students and/or their parent(s)/guardian(s) related to all complaints associated with discrimination should be directed to:

Mailing Address:        Superintendent of Schools  
                                 West Branch – Rose City Area Schools  
                                 P.O. Box 308  
                                 West Branch, MI 48661

Phone:                    989.343.2000

Physical Address:       960 S. M-33, West Branch, MI 48661

Each institution is a reflection of the society in which it exists. So it is with Ogemaw Heights High School. Serving the students and parents of Ogemaw County, our high school reflects the needs and values of our community. It is with these needs and values in mind that the philosophy of education at Ogemaw Heights High School has been developed.

## **PHILOSOPHY OF EDUCATION OGEMAW HEIGHTS HIGH SCHOOL**

It is the aim of Ogemaw Heights High School to provide the best educational opportunity possible for the students of the community. It is realized that the school must serve all of the pupils by offering programs of interest and value to those who will not go beyond the high school and giving the best possible preparation to those students who will pursue education beyond the high school level. In meeting the needs of its pupils, the school shall strive to:

Educate each individual toward the limit of his or her capacity and take recognition of individual differences

Develop in each pupil a recognition of moral, social and ethical values

Instill the principles of democratic ideals, democratic responsibility, democratic processes of government, as well as the rationale underlying the need for educated citizens in a democracy

Develop the ability to think and plan independently

Establish a friendly and cooperative relationship between home, student, school and community

Establish a proper environment for the development of the health and welfare of each student.

Assist every student to believe in oneself, to see a worthwhile, competent and self-directed person within

Prepare our graduates to adapt to changing technology, provide a solid foundation for further academic pursuits and/or job market and enrich the probability of a personally rewarding and satisfying life

Provide learning experiences that stress problem solving, analytical thinking and higher level questioning techniques

## OGEMAW HEIGHTS GRADUATION REQUIREMENTS CLASS of 2022 AND BEYOND

### Credit Requirements

4 credits English  
 4 credits Mathematics  
 3 credits Science  
 3 credits Social Studies  
 ½ credit Health  
 ½ credit Physical Education  
 1 credit Visual, Performing, Applied Arts  
 2 credits World Language  
 Online Learning Experience

### Course Requirements

English 9, English 10, English 11, English 12  
 Algebra 1, Geometry, Algebra 2  
 Math or math-related course required in final year  
 Biology or Animal & Plant Biology, Physical Science & one additional science course or completion of any CTE program  
 World History/Geography, U.S. History/Geography, Government, Economics

### **Credits Required for Graduation = 22**

Any student who has lost more than two (2) credits is not on track for graduation.

All courses that meet the Michigan Merit Curriculum requirements must be aligned with the subject area content expectations or the credit guidelines developed by the Michigan Department of Education (MDE).

The **mathematics** credit requirement may be modified as part of a personal curriculum only after the pupil has completed 1 ½ math credits.

The Social Studies, Health, Physical Education, and Visual, Performing, Applied Arts credit requirements **cannot be modified**.

The Online Learning Experience can be met before high school in Instructional Technology 8 or by taking a course meeting this requirement as indicated in the course description handbook.

The world language requirement may be met prior to entering high school through successful completion of a combination of Spanish language and culture instruction in 7<sup>th</sup> and 8<sup>th</sup> grade. See the middle school course description book.

## SCHEDULING AND SCHEDULE CHANGE REQUESTS

Students enrolled at Ogemaw Heights will develop a four-year plan in accordance with their academic background, career pathway and interests. Planning for four years will help students develop a balanced schedule. Counselors and teachers are available to make recommendations as students develop and update their Education Development Plans (EDPs), which include their four-year education plans. The final decision will be made by the student, parent and counselor.

Selecting classes is a very important process. The classes selected should help prepare the student for life beyond high school as well as help reach requirements for graduation. Please choose classes wisely. Take advantage of the opportunity to talk with parents teachers and counselors about specific class choices. The classes requested will be the classes that will be scheduled into the next year. **Schedule changes will be rare and based only on extenuating circumstances. Please choose classes wisely!**

## ARTICULATION

Students who successfully complete the following courses with a “B” or better **may** receive college credit through Delta College. Check the course descriptions for further details.

Building Trades  
Health Care Provider

Machine Tool  
Medical Basics

## ADVANCED PLACEMENT COURSES

The national AP exam is offered in May for the following courses. The fee for taking the exam will be paid by the school.

AP Biology  
AP Calculus  
AP Chemistry  
AP Language & Composition

AP Literature & Composition  
AP Physics  
AP U.S. History  
AP World History

Note: Any student taking a full year advanced placement class must complete the class to receive credit on a 5 point scale. **If a student drops the class at semester, the student’s grade point average will be recalculated using a 4 point scale for the first semester.**

## DUAL ENROLLMENT

Students in grades 9 – 12 are provided the opportunity to be enrolled in both high school and post-secondary (college) courses at the partial expense of the school district. The post-secondary credit may be counted for high school and college credit. To qualify for dual enrollment, students must meet the eligibility requirements established by the state and the post-secondary institution. For details regarding the eligibility requirements, refer to the student handbook or contact your counselor.

## ONLINE LEARNING

Current Michigan legislation allows students who are enrolled in a Michigan public school district and who have consent from their parent or guardian to enroll in up to two online courses each semester. Students should read the Online Learning Center Readiness Resource and Policies and Procedures to determine whether taking an online course is a good fit. Students must select the online course(s) when they meet with their counselor **in the spring** to complete their Educational Development Plans (EDPs) and register for courses. The deadline for submitting signed registration forms for online courses is **May 1**. Students may select courses from the statewide catalog of online courses that contains courses published by district course providers statewide, including Michigan Virtual School courses. See the district website for a link to the statewide catalog.



## DIVISION I ACADEMIC REQUIREMENTS

College-bound student-athletes will need to meet the following academic requirements to practice, receive athletic scholarships, and/or compete during their first year.

### Core-Course Requirement

Complete 16 core courses in the following areas:



### Full Qualifier

- Complete 16 core courses.
  - Ten of the 16 core courses must be completed before the seventh semester (senior year) of high school.
  - Seven of the 10 core courses must be in English, math or science.
- Earn a core-course GPA of at least 2.300.
- Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale (see back page).
- Graduate high school.

### Academic Redshirt

- Complete 16 core courses.
- Earn a core-course GPA of at least 2.000.
- Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale (see back page).
- Graduate high school.

### Full Qualifier:

College-bound student-athletes may practice, compete and receive athletics scholarships during their first year of enrollment at an NCAA Division I school.

### Academic Redshirt:

College-bound student-athletes may receive athletics scholarships during their first year of enrollment and may practice during their first regular academic term, but may NOT compete during their first year of enrollment.

### Nonqualifier:

College-bound student-athletes cannot practice, receive athletics scholarships or compete during their first year of enrollment at an NCAA Division I school.





## 2018 DIVISION II NEW ACADEMIC REQUIREMENTS

College-bound student-athletes first enrolling at an NCAA Division II school on or after August 1, 2018, need to meet new academic rules to practice, compete and receive athletics scholarships during their first year.

### Core-Course Requirement

Complete 16 core courses in the following areas:



### Full Qualifier

- Complete 16 core courses.
- Earn a core-course GPA of at least 2.200.
- Earn the ACT/SAT score matching your core-course GPA on the Division II full qualifier sliding scale (see back page).
- Graduate high school.

### Partial Qualifier

- Complete 16 core courses.
- Earn a core-course GPA of at least 2.000.
- Earn the ACT/SAT score matching your core-course GPA on the Division II partial qualifier sliding scale (see back page).
- Graduate high school.

### Full Qualifier:

College-bound student-athletes may practice, compete and receive athletics scholarships during their first year of enrollment at an NCAA Division II school.

### Partial Qualifier:

College-bound student-athletes may receive athletics scholarships during their first year of enrollment and may practice during their first regular academic term, but may NOT compete during their first year of enrollment.

### Nonqualifier:

College-bound student-athletes may not practice, compete or receive athletics scholarships during their first year of enrollment at an NCAA Division II school.

## COLLEGE RECOMMENDATIONS

College admissions officers consider various factors when making an admission decision. The top three factors, according to the 2018 NACAC Admissions Trend Survey, are shown below.

	<u>Considerable Importance</u>	<u>Moderate Importance</u>
1. Grades in All Courses	81%	10%
2. Grades in College Prep Courses	71%	18%
3. Standardized Admission Tests (SAT)	52%	30%

Colleges and universities also recommend the following minimum high school credits:

English	4 years	Social Studies	3 years
Mathematics	4 years	World Language	2 years
Science	4 years		

### ENGLISH DEPARTMENT

COURSE	GRADE	CREDIT	PREREQUISITE
English 9	9	1	
English 10	10	1	English 9
Pre-AP English	10	1	B or better in English 9 (or teacher approval)
English 11	11	1	English 10 or Pre-AP English
English 12	12	1	English 11
AP Language and Composition	11-12	1	B or better in English 9 and English 10 or Pre-AP English
AP Literature	11-12	1	B or better in English 9 and English 10 or Pre-AP English
Yearbook	11-12	1	Instructor approval
Creative Writing	11-12	1	English 9 and 10
Introduction to Theatre & Performance	9-12	1	
Advanced Theatre & Performance	10-12	1	B or better in Introduction to Theatre & Performance or Instructor Approval
English Comp 1 & 2 (KCC)	12	1	Existing college prerequisite/admission requirements. Must pass English Comp 1 with a C or better.

### SOCIAL STUDIES DEPARTMENT

COURSE	GRADE	CREDIT	PREREQUISITE
World History/Geography	9-12	1	
U.S. History/Geography	10-12	1	
Government	11-12	½	
Economics	11-12	½	
Introduction To Psychology	11-12	½	
Developmental Psychology	11-12	½	Introduction to Psychology
AP U.S. Government & Politics	11-12	1	
AP U.S. History	10-12	1	
AP World History	10-12	1	

## MATHEMATICS DEPARTMENT

COURSE	CREDIT	PREREQUISITE
Algebra 1	1	
Geometry	1	Algebra 1
Algebra 2	1	Geometry or teacher recommendation
Algebra 2A	1	Geometry
Algebra 2B	1	Algebra 2 A
Statistics and Probability	1	Geometry
Pre-Calculus	1	Algebra 2
AP Calculus	1	Pre-Calculus
AP Statistics	1	Algebra 2
Intermediate Algebra KCC	.5	Algebra 1 (C or better) <u>and</u> Accuplacer Test/PSAT/SAT Score
College Algebra	.5	Math 12000 Intermediate Algebra and requisite placement test scores

## SCIENCE DEPARTMENT

COURSE	CREDIT	PREREQUISITE
Animal and Wildlife Biology	1	
Plant and Environmental Biology	1	Animal and Wildlife Biology
Biology	1	
Advanced Science and Technology I	1	Algebra 1
Advanced Science and Technology II	1	Advanced Science and Technology I
AP Biology	1	B or better in Biology or Animal Biology and Plant Biology
Anatomy/Physiology	1	B or better in Biology or Animal Biology and Plant Biology
Environmental Science	1	2 semesters of successfully completed Biology or Animal Biology and Plant Biology
Physical Science	1	Successful completion of Algebra 1
Physics	1	2 semesters of successfully completed Physical Science 4 semesters of successfully completed math coursework, including Geometry.
AP Physics 1	1	4 semesters of successfully completed math coursework, including Geometry. Successful completion of Physical Science
Chemistry	1	Successful completion of Algebra 1 (Class of 2020 & 2021) Successful completion of Physical Science (Class of 2022 & beyond)
AP Chemistry	1	B or better in Chemistry (or teacher approval)

## BUSINESS, MANAGEMENT, AND TECHNOLOGY

COURSE	GRADE	CREDIT	PREREQUISITE
Accounting 1 <b>NOT CURRENTLY OFFERED</b>	10-12	1	
Accounting 2 <b>NOT CURRENTLY OFFERED</b>	11-12	1	Accounting 1
Business Technology 1 <b>NOT CURRENTLY OFFERED</b>	9-12	1	
Business Technology 2 <b>NOT CURRENTLY OFFERED</b>	10-12	1	Business Tech 1
Personal Law and Finance	11-12	1	
Computer Applications <b>NOT CURRENTLY OFFERED</b>	9-12	½	
Advanced Computer Applications <b>NOT CURRENTLY OFFERED</b>	9-12	½	Computer Applications

## VISUAL PERFORMING, AND APPLIED ARTS

These courses meet the graduation requirement for Visual, Performing, and Applied Arts.

DEPARTMENT	COURSE TITLE
English	Intro and Advanced Theatre/Performance
Music	Symphonic Band
Music	Jazz Band
Music	Concert Choir
Art	Art 1
Art	Art 2
Art	Art 3
Other Electives	Communications/Media
Machine Tool/Machine Shop	General Metals
Machine Tool/Machine Shop	Machine Tool 1
Machine Tool/Machine Shop	Machine Tool 2
Machine Tool/Machine Shop	CAD CAM
Construction Trades	Introduction to Building Trades
Construction Trades	Building Trades

# ENGLISH

**Graduation Credit Requirement:** 4 credits  
**Course Requirements:** English 9  
 English 10 or Pre-AP English  
 English 11 or AP Language  
 English 12 or AP Literature

<b>English 9 (Required)</b>	<b>Grade: 9</b>	<b>1 credit</b>
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English 9 is a student-centered learning environment where students will analyze text, cite evidence, and respond critically about their learning. Each unit of study will include selections from different genres, including multi-media, all related to a relevant and meaningful essential question. Student will engage in activities that inspire thoughtful discussion and debate that will help students to formulate and defend their own perspectives. Career Development will also take place throughout the year.

<b>English 10 (Required) World Literature</b>	<b>Grade: 10</b>	<b>1 credit</b>
<b>Prerequisite: English 9</b>		

English 10 continues the structure and curriculum built in English 9, including the student-centered learning environment where students will analyze text, cite evidence, and respond critically about their learning. Each unit of study will include selections from different genres, including multi-media, all related to a relevant and meaningful essential question. Students will engage in activities that inspire thoughtful discussion and debate that will help students to formulate and defend their own perspectives. Students will continue to work on Career Development and begin to build portfolios.

<b>Pre-AP English (meets English 10 Requirement)</b>	<b>Grade: 10</b>	<b>1 credit</b>
<b>Prerequisite: B or better in English 9 (or teacher approval)</b>		

This accelerated course is for the self-motivated learner. Following the Common Core State Standards, Pre-AP English offers a thematic study of British and World Literature and it will continue to build a solid foundation of strategies, knowledge, and skills that will be refined, applied, and extended as students engage in more complex ideas, texts and tasks. Students in Pre-AP English will further develop their proficiency in different forms of writing such as argumentative, compare/contrast, descriptive, and analytical. Additionally, in Pre-AP English, students will become increasingly skilled readers of works written in a variety of periods and genres, including various narrative and informational texts. Students will connect with and respond to texts through critical response and stance. They will learn to evaluate for validity and quality, to balance and expand their perspectives promoting empathy, social action and appropriate use of power. The course will culminate in a literary research/position paper which will reflect the materials studied earlier in the school year.

*Skills and reading selections taught in Pre-AP English will help prepare students to take Advanced Placement English courses later in high school.*

<b>English 11 (Required) American Literature</b>	<b>Grade: 11</b>	<b>1 credit</b>
<b>Prerequisite: English 10 or Pre-AP English</b>		

English 11 is a comprehensive study of American authors and their works as well as foundational documents. The curriculum follows the Common Core State Standards. Students will enhance and expand the writing skills developed in English 9 and 10. Emphasis will be placed on argumentative papers in preparation for standardized tests along with timed writings to streamline their thought process. Development of vocabulary, grammar, and writing skills needed for English 12 are included. The research component will culminate in a speaking project.

<b>English 12 (Required)</b>	<b>Grade: 12</b>	<b>1 credit</b>
<b>Prerequisite: English 11</b>		

English 12 is the culmination of the Ogemaw Heights English Program. Following the Common Core State Standards and the requirement that the students be exposed to literature, students in the class will demonstrate proficiency in higher lever thinking, listening, reading, speaking, research and writing skills. **Emphasis will be placed on technical reading and writing. The focus throughout this course will be on activities that are relevant to each student's career pathway.** Exploration of colleges, college applications, portfolios, scholarship searches and career information will also encompass part of this class.

<b>AP Language and Composition (meets English 11 Requirement)</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: B or better in English 9 and English 10</b>		

*Students earn high school credit and may also earn college credit by taking the national exam offered in the spring.* The course is a study of rhetoric, which is the art of writing. In this class, students will focus on non-fiction writing in the form of rhetorical analysis, argument, and synthesis. Students will be introduced to various rhetorical strategies, and will be expected not only to use them in their writing, but to recognize these strategies in the writings of other authors. This rigorous class focuses on non-fiction readings, but will also include American authors covered in English 11. The skills learned in this class will not only help students across the curriculum, but also at the collegiate level, regardless of major. *The fee for taking the national AP exam in May will be paid by the school, and taking the test is mandatory.*

<b>AP Literature (meets English 12 Requirement)</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: B or better in English 9 and English 10</b>		

*Students earn high school credit and may also earn college credit by taking the national exam offered in the spring.* The course is a comprehensive study of literature and composition. The course, divided into six thematic units, entails a rigorous load: outside novels from an approved reading list will be required each semester in addition to the course load of specific required reading and composition assignments. Students commit to maintaining a portfolio that shows a development of their writing skills. Vocabulary will be taught in the context of the readings. A research paper is required. *The fee for taking the national AP exam in May will be paid by the school, and taking the test is mandatory.*

<b>Yearbook (Elective)</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Instructor approval</b>		
<b>This course does not count as an English credit requirement for graduation.</b>		

Yearbook will be responsible for publishing the school yearbook. Students will learn to write concise, interesting news stories. Emphasis will be placed on planning the yearbook. Students will explore yearbook issues, gathering news, writing copy, interviewing, editing, proofreading, photography, and selling advertising. Knowledge of English grammar and good writing skills are necessary to this class. **Extra-curricular time is required and grades may be affected by these requirements.** This class may be taken more than once.

<b>Creative Writing (Elective)</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: English 9 and English 10</b>		
<b>This course does not count as an English credit requirement for graduation.</b>		

Creative Writing focuses on the intensive development of advanced creative writing skills. Units will be selected from diverse genres. Essay, poetry, children's literature, drama, and the short story are included. Students will be required to create a personal writing portfolio during this full-year course, in addition to daily prompt writings, weekly journaling, author's chair readings, and work-shopping techniques. This course may be taken more than once.

<b>Introduction to Theatre &amp; Performance (Elective)</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
<b>This course meets the graduation requirement for Visual, Performing, Applied Arts.</b>		
<b>This course does not count as an English credit requirement for graduation.</b>		

Students in this class will begin to explore the basics of drama and theatre. Students will be learning about the basic elements of dramatic technique such as movement, facial expression and improvisation while at the same time participating in various in-class on stage activities that will enhance understanding of the aforementioned concepts and allow students to explore creative and dramatic expression in informal performances. They will also learn basic design and technical elements and explore theatre related careers. Both class work and stage work will be graded elements in this course. This course may only be taken once.

<b>Advanced Theatre &amp; Performance (Elective)</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: B or better in Introduction to Theatre and Performance or Instructor Approval.</b>		
<b>This course meets the graduation requirement for Visual, Performing, Applied Arts.</b>		
<b>This course does not count as an English credit requirement for graduation.</b>		

Students taking this course will delve more deeply into the elements taught at the Introductory level and also work on the more technical design aspects of dramatic productions. They will explore the multiple genres of theatre including improvisation, drama, comedy, melo-drama, commedia del'arte and musical theatre. The class will require two public performances. One will be in late December, the second will be in May – participation in these performances is mandatory. Extra-curricular time is required and grades may be affected by these requirements. Students taking this course will also have the option of preparing pieces for competition at the state level. This class may be taken more than once with teacher approval.

## SOCIAL STUDIES

<b>Graduation Credit Requirement:</b>	<b>3 credits</b>
<b>Course Requirements:</b>	<b>World History/Geography</b> <b>U.S. History/Geography</b> <b>Government</b> <b>Economics</b>

<b>World History/Geography (Required)</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
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World History/Geography is more than a chronology of facts. It is an exploration of big ideas across time and place. Using the concepts of history, culture, geography, government, economics, science, and technology will help you understand and enjoy the study of World History/Geography by connecting with the drama and meaning of the human experience. Emphasis will be placed on using skills to interpret information and solve problems while looking for connections to the real world and society today.

<b>U.S. History/Geography (Required)</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
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This course surveys the important people, events, and developments in US history from 1870 to the present day. Topics included are: Industrial and Urban America, American Imperialism, the Progressive Era, World War I, the Roaring Twenties, the Great Depression, World War II, the Cold War, McCarthyism, the Korean War, the Civil Rights Movement, Vietnam, Watergate, the Reagan Era and the role of the United States in a post-cold war world.

<b>Government (Required)</b>	<b>Grade: 11, 12</b>	<b>1/2 credit</b>
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This course is a study of the structure and operation of the federal government and its relationship to the individual citizen. State and local government is also examined.

<b>Economics (Required)</b>	<b>Grade: 11, 12</b>	<b>1/2 credit</b>
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Students will analyze and study economic concepts necessary for the understanding of individual and household choices, personal finance issues, business and entrepreneurial decisions, and public policy. Students will study economic concepts and principles focused around four content areas: The Market Economy, The National Economy, the Global Economy, and Personal Finance.



<b>Introduction to Psychology</b>	<b>Grade: 11, 12</b>	<b>1/2 credit</b>
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This course is an introduction to psychology, the study of the individual. The emergence of psychology as a science, behavioral theories, and structure of the brain, and sensation are among the topics studied. Students with an average grade below a "B" may have difficulty in the class.

<b>Developmental Psychology</b>	<b>Grade: 11, 12</b>	<b>1/2 credit</b>
<b>Prerequisite: Introduction to Psychology</b>		

This course continues in the study of psychology, concentrating on the development of the individual. This class studies the physiological and environmental, nature vs. nurture, development of a person from infancy through adulthood. Students with an average grade below a "B" may have difficulty in the class.

<b>AP U.S. Government and Politics</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
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This course includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics. Students can earn college credit through a successful completion of the AP examination. *The fee for taking the national AP exam in May will be paid by the school, and taking the test is mandatory.*

<b>AP U.S. History</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
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AP U.S. History covers the spectrum of American history from pre-Columbian days to the present. Using chronological and thematic approaches to the material, the course exposes students to extensive primary and secondary sources and to the interpretations of various historians. Class participation through seminar reports, discussions, debates, and role-playing activities is required; special emphasis is placed on critical reading and essay writing to help students prepare for the AP examination scheduled in May. Students can earn college credit through a successful completion of the AP examination. *The fee for taking the national AP exam in May will be paid by the school, and taking the test is mandatory.*

<b>AP World History</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
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This course is recommended for students who are interested in expanding on their earlier exposure to world history. It focuses on developing students' abilities to think conceptually about world history from approximately 8000 BCE to the present and apply historical thinking skills as they learn about the past. Five themes of equal importance — focusing on the environment, cultures, state-building, economic systems, and social structures — provide areas of historical inquiry for investigation throughout the course. AP World History encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions. Special emphasis is placed on critical reading and essay writing to help students prepare for the AP examination scheduled in May. Students can earn college credit through successful completion of the AP examination. *The fee for taking the national AP exam in May will be paid by the school, and taking the test is mandatory.*

# MATHEMATICS

**Graduation Credit Requirement: 4 credits**

**Course Requirements:**

**Algebra 1**

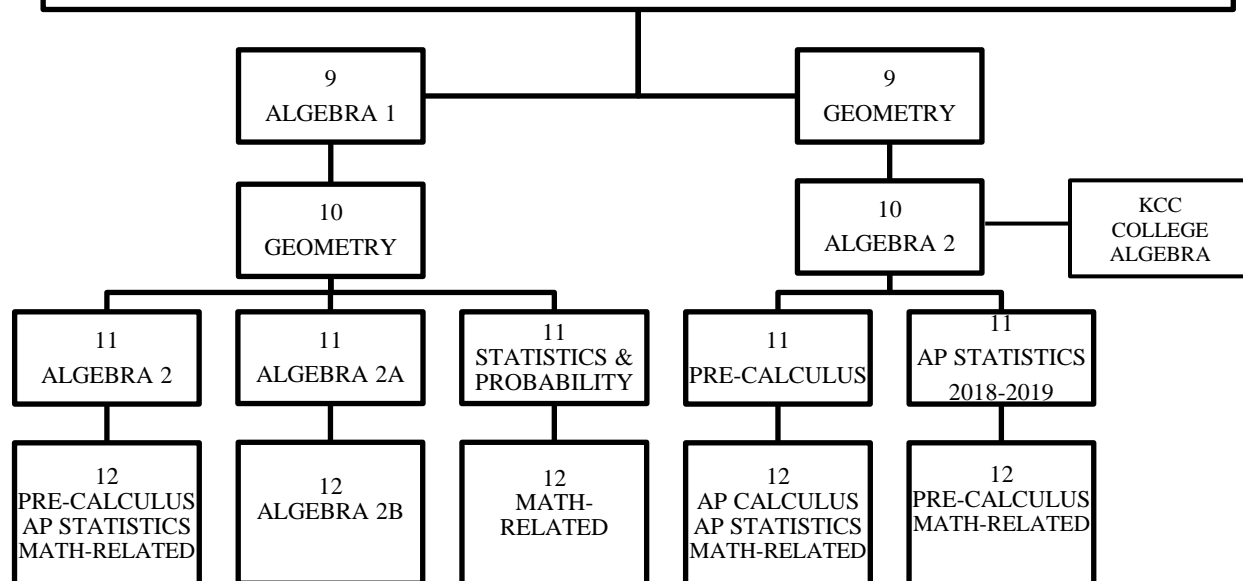
**Geometry**

**Algebra 2 (or Algebra 2A and Algebra 2B)**

**Math or math-related course in the final year**

**The mathematics credit requirement may be modified as part of a Personal Curriculum only after the pupil has completed 1 ½ math credits. Students who choose to enroll in Statistics and Probability must have a Personal Curriculum.**

## MATH COURSE SEQUENCE



Prerequisite	9	10	11	Math-related Courses	12
Accounting				Accounting 2	
Animal Biology and Plant Biology				Agriculture Leadership	
Animal Biology and Plant Biology and Agricultural Leadership or Biology and Agriculture Leadership with Instructor Approval				Agriculture Entrepreneurship	
B or better in Chemistry (or teacher approval)				AP Chemistry	
Intro to Building Trades				Building Trades	
Business Technology 1				Business Technology 2	
				CAD CAM	
Medical Basics				Health Care Provider	
General Metals				Machine Tool 1, Machine Tool 2	
				Personal Law and Finance	
2 semesters of successfully completed Physical Science				Physics	
4 semesters of successfully completed math coursework, including Geometry					
2 semesters of successfully completed Physical Science				AP Physics 1	
4 semesters of successfully completed math coursework, including Geometry					
Algebra 1				Advanced Science & Technology	
Advanced Science and Technology 1, Algebra 1				Advanced Science & Technology II	

<b>Algebra 1 (Required)</b>	<b>Grade: 9</b>	<b>1 credit</b>
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This course uses collaborative learning to present all Algebra 1 content expectations. Topics that are covered **in depth** include: number systems, expressions, equations, inequalities, and linear, quadratic, and absolute value functions. Topics that are introduced include exponential and polynomial functions.

<b>Geometry (Required)</b>	<b>Grade: 9, 10</b>	<b>1 credit</b>
<b>Prerequisite: Algebra 1</b>		
<b>Geometry <i>may</i> be taken concurrently with Algebra 2 only upon teacher recommendation. Consideration will be given to students with a B+ or better average in Algebra 1.</b>		

This course uses collaborative learning to review algebra 1 content and develops logical reasoning which includes extensive work in two- and three-dimensional figures, forming conjectures, and deductive proofs.

<b>Algebra 2 (Required)</b>	<b>Grade: 10, 11</b>	<b>1 credit</b>
<b>Prerequisite: Geometry or teacher recommendation</b>		

This course uses collaborative learning to review the fundamentals developed in Algebra 1 and Geometry, followed by advanced work in systems of equations, matrices, polynomials, relations, families of functions, sequences, quadratic equations, conic sections, logarithms, and introductory trigonometric functions.

<b>Algebra 2A</b>	<b>Grade: 11</b>	<b>1 credit*</b>
<b>Prerequisite: Geometry</b>		
<b>* Students will earn one math credit if they complete both Algebra 2A and Algebra 2B.</b>		

This full-year course covers the first semester content of Algebra 2.

<b>Algebra 2B</b>	<b>Grade: 12</b>	<b>1 credit *</b>
<b>Prerequisite: Algebra 2A</b>		
<b>* Students will earn one math credit if they complete both Algebra 2A and Algebra 2B.</b>		

This full-year course covers the second semester content of Algebra 2.

**\*Note:** Students will earn one math credit for each course if they complete both Algebra 2A and Algebra 2B. Allowing students to earn two credits over two years provides students more time to master the content of Algebra 2. If a student intends to take Algebra 2 over two years for two credits, but completes just one of the two years, he or she has demonstrated mastery in half the Algebra 2 content and will be awarded only 1/2 credit in Algebra 2.

<b>Statistics and Probability</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Geometry</b>		

This class is an introductory course covering the concepts and methods of statistics, including topics such as variability, data analysis, probability, estimation and hypothesis testing. Many jobs or professions require you to make objective decisions based upon statistical data. To help you make these kinds of decisions, this course shows you how to collect, analyze, and interpret data correctly. The course also shows you how to present data to other people in ways that are clear and accurate.

<b>Pre-Calculus</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Algebra 2</b>		

The purpose of this course is to provide a solid and intense algebraic and trigonometric background for students. Topics include analytic trigonometry, discrete math, complex numbers, analytic geometry, exponential/logarithmic functions, vectors, and parametric equations.

<b>AP Calculus</b>	<b>Grade: 12</b>	<b>1 credit</b>
<b>Prerequisite: Pre-Calculus</b>		

This course introduces differentiation and integration, with an emphasis on applications in the fields of engineering and physics. Calculus extends your ability to solve problems beyond Algebra. *The fee for taking the national AP exam in May will be paid by the school, and taking the test is mandatory.*

<b>AP Statistics</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Algebra 2</b>		

AP Statistics is a college-level course that introduces students to the concepts and tools used to collect, analyze and draw conclusions from data. This course is aligned to the Advanced Placement curriculum for statistics. *The fee for taking the national AP exam in May will be paid by the school, and taking the test is mandatory.*

## SCIENCE

**Graduation Credit Requirement: 3 credits**

**Course Requirements:**

**Biology, Physical Science & one additional science course  
or completion of a CTE Program**

**Class of 2021: Biology -or- Animal Biology & Plant Biology  
Chemistry one additional science course**

Students who plan to attend a four-year college should take at least four full year science courses to prepare for the general science requirements that most colleges have for all their students to graduate, no matter what the student's selected major might be.

<b>Animal and Wildlife Biology</b>	<b>Grade: 9</b>	<b>1 credit</b>
<b>This course counts as a science credit.</b>		

Animal and Wildlife Biology focuses on the scientific principles that underlie the breeding and husbandry of domesticated farm animals. It includes instruction in genetics, health and nutrition, reproduction, husbandry, comparative animal systems as well as growth and development of domesticated farm animals. Natural resources fundamentals such as wildlife and aquaculture are also included. A service learning project is required that will focus on scientific and social implications of agriculture. This project will have research, written and oral presentation components. FFA membership is strongly encouraged.

<b>Plant and Environmental Biology</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Animal and Wildlife Biology</b>		
<b>This course counts as a science credit.</b>		

Plant and Environmental Biology focuses on the chemical, physical, and biological relationships of crops and the soil nurturing them. It includes instruction in the growth and behavior of agricultural crops and the scientific management of soils and nutrients for maximum plant growth, health, and productivity. Environmental and energy systems as well as natural resources fundamentals such as forestry and water resources are also included. A service learning project is required that will focus on scientific and social implications of agriculture. This project will have research, written and oral presentation components. The research and presentation skills learned in Animal and Wildlife Biology will be expanded. FFA membership is strongly encouraged.

<b>Biology</b>	<b>Grade: 9</b>	<b>1 credit</b>
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This course satisfies the life science graduation requirement. It will begin with a comprehensive look into the cellular function and homeostatic conditions of cells. We move on to genetics and inheritable patterns. A comprehensive comparison of the animal and plant kingdom comes next and we then conclude with the human systems.

<b>AP Biology</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: B or better in Biology or Animal Biology and Plant Biology</b>		

The AP Biology course is designed to offer students a solid foundation in introductory college –level biology. By structuring the course around the four big ideas, enduring understandings, and science practices we assist students in developing an appreciation for the study of life and help them identify and understand unifying principles within a diversified biological world. What we know today about biology is a result of inquiry. Science is a way of knowing. Therefore, the process of inquiry in science and developing critical thinking skills is the most important part of this course. At the end of the course, students will have an awareness of the integration of other sciences in the study of biology, understanding how the species to which we belong is similar to, yet different from, other species, and be knowledgeable and responsible citizens in understanding biological issues that could potentially impact their lives. *The fee for taking the national AP exam in May will be paid by the school, and taking the test is mandatory.*

<b>Advanced Science &amp; Technology I</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Algebra 1</b>		
<b>May be taken as Science elective or Math related course (12<sup>th</sup> grade).</b>		

Advanced Science and Technology is a S.T.E.M. (Science, Technology, Engineering and Math) class. This class is a multidisciplinary, integrative problem-solving inquiries that foster critical and computationally driven thinking. It is about engaging students with real data in real problems that are approached creatively and collaboratively like the way professional need to work. Students will use GIS (Geographic Information Systems), Robotics and Underwater Drones (ROV) as tools to solve local and worldly problems. Students will work collaboratively using these tools to work through scenarios while learning how to solve problems using the engineering design model. This class will count as a math related course.

<b>Advanced Science and Technology II</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Advanced Science and Technology 1, Algebra 1</b>		
<b>May be taken as Science elective or Math related course (12<sup>th</sup> grade).</b>		

Advanced Science and Technology II is a S.T.E.M. (Science, Technology, Engineering and Math) class and a continuation of Advanced Science and Technology 1. STEM 2 is a multidisciplinary, integrative problem-solving, inquiry-based class that fosters critical and computationally driven thinking. It engages students with real data in real problems that are approached creatively and collaboratively in the way professionals need to work. Students will use GIS (Geographic Information Systems) and Remote Sensing, Robotics and Underwater Drones (ROV), 3D Printing, and coding (Simplify 3D, C++, Arduino) as tools to solve local and worldly problems. Students will collaborate using these tools to work through scenarios while learning how to solve problems using the engineering design model. This class can count as a math related course for seniors.

<b>Anatomy and Physiology</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: B or better in Biology or Animal Biology and Plant Biology</b>		

Human Anatomy and Physiology is a laboratory-based course that investigates the structure and function of the human body. Topics covered will include the basic organization of the body; biochemical composition; and the major body systems along with the impact of disease on certain systems. Students will engage in many topics and competencies related to truly understanding the structure and function of the human body. Working from the topics of basic anatomical terminology to the biochemical composition of the human body, all the way into great detail of each of the major systems of the body, student will learn through reading materials, study guides, unit worksheets, group work, projects, and labs. High levels of achievement will be in effect. Students will be responsible for proper use of the lab equipment, lab reports, and projects assigned throughout each unit. One of the goals of this course is to prepare students with the skills necessary to be successful in future science classes in college.

<b>Environmental Science</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: 2 semesters of successfully completed Biology or Animal &amp; Plant Biology</b>		

Environmental science is the study of the interaction between the physical and biological environment. Emphasis is placed on the formation of the solar system and Earth, and the processes that shaped and formed our Earth as we see it today. The Earth as a whole will be broken down into a series of systems (Carbon/Climate/Water...) that are constantly changing, influencing, and interacting. Students will explore human's dependence on, technological control of, and interaction with these systems.

<b>Physical Science</b>	<b>Grade: 9, 10</b>	<b>1 credit</b>
<b>Prerequisite: Successful completion of Algebra 1. This course counts as required science credit starting with the Class of 2022.</b>		

This course is designed to introduce scientific inquiry processes and physical science principles that meet the essential Next Generation Science Standards (NGSS) curriculum in preparation for SAT standard assessment. This course will address the following topics: experimental design, measurements and ratios, graphical analysis, particle nature of matter, particles in motion, energy, constant velocity, uniform acceleration, and forces.

<b>Physics</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: 2 semesters of successfully completed Physical Science 4 semesters of successfully completed math coursework, including Geometry</b>		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

This course is designed for those who wish to develop critical thinking and problem-solving skills through exploring physical systems. Students will be expected to examine physical systems and develop reliable ways of thinking (basic models) that allow them to interpret and predict outcomes for physical systems. Students will be expected to represent their thinking through graphs, maps, diagrams, symbolic relationships, and linguistic interpretations. Through reliable evaluation techniques and interpretation strategies, students can develop a deep conceptual understanding of the concepts. In addition, students will be asked to explore the history and philosophy of the concepts they learn in order to develop views related to the Nature of Science. This will be achieved through the study of motion, forces, and energy.

<b>AP Physics 1</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: 2 semesters of successfully completed Physical Science 4 semesters of successfully completed math coursework, including Geometry</b>		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque and rotational motion, electric charge and electric force, DC circuits, and mechanical waves and sound.

<b>Chemistry</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Successful completion of Algebra 1 and Physical Science</b>		

This course is designed for those who wish to develop critical thinking and problem solving skills through exploring Chemistry. Students will be expected to examine matter and its interactions and develop reliable ways of thinking (basic models) that allow them to interpret and predict outcomes. Students will be expected to represent their thinking through graphs, maps, diagrams, symbolic relationships, and linguistic interpretations. Through reliable evaluation techniques and interpretation strategies, students can develop a deep conceptual understanding of the concepts. In addition, students will be asked to explore the history and philosophy of the concepts they learn in order to develop views related to the Nature of Science. This will be achieved through the study of matter, states of matter, energy, atoms, molecules and chemical compounds and reactions.

<b>AP Chemistry</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: B or better in Chemistry (or instructor approval)</b>		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

The course is a continuation of Chemistry for those students contemplating college work in the medical fields, sciences, engineering-related majors, and any other area requiring any college chemistry courses. There is an emphasis on electron configurations, bonding, the periodic table, solutions, kinetics, thermodynamics, equilibrium, acids and bases, electrochemistry, and oxidation and reduction. The national AP test and Chemistry CLEP test enable students with high scores to receive free college credit in chemistry at most colleges around the nation. *The fee for taking the national AP exam in May will be paid by the school, and taking the test is mandatory.*



## WORLD LANGUAGE

**Graduation Credit Requirement: 2 credits**

<b>Spanish 1</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
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This course is an introduction to the Spanish language and culture. It will cover extensive work on the grammatical aspects of the language as well as building a working vocabulary. Students will practice listening, speaking, reading and writing in the target language. This course is designed for, but not limited to, college-bound students.

<b>Spanish 2</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: C- or better in Spanish 1</b>		

This course is a continuation of Spanish grammar and vocabulary with the emphasis on oral communication. Students will also develop their reading, writing and listening skills through a variety of activities using authentic media sources and projects to show proficiency.

<b>Spanish 3</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: C+ or better in Spanish 2</b>		

Spanish 3 provides students an opportunity to deepen their knowledge base of Spanish vocabulary and grammar as well as use their Spanish skills in both real-life and academic situations. Students will prove their competencies in reading, writing, speaking and understanding the target language using varied time frames and grammatical concepts appropriately (past, present, future, conditional, etc.). This course is designed to prepare students for college level Spanish coursework and is offered as an independent study. To be successful, students must be self-motivated and disciplined.

## BUSINESS, MANAGEMENT, AND TECHNOLOGY

**Graduation Credit Requirement:** 1/2 credit  
**Course Requirements:** Information Technology 1 -or- Business Technology 1

<b>Accounting 1</b> <b>NOT CURRENTLY OFFERED</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: 10<sup>th</sup> grade with counselor approval</b>		

This course is for students who have a variety of career objectives—beginning vocational preparation for careers in accounting, acquiring accounting knowledge and skill needed for careers in related business fields, or building a foundation on which to continue studying business and accounting at the college level. Students should like to work with figures. The course is designed for students with average and better-than-average grades.

<b>Accounting 2</b> <b>NOT CURRENTLY OFFERED</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Accounting 1</b>		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

This course is designed for students who want an accounting position upon graduation from high school or want to go to college and major in accounting or some phase of business.

The material in the course is designed to help students broaden and improve their knowledge, understanding, and application of accounting competencies. The course includes the use of a computerized approach to solving advanced accounting applications and a hands-on approach to learning how automated accounting systems and spreadsheets function.

<b>Business Technology 1</b> <b>NOT CURRENTLY OFFERED</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
<b>This full-year course fulfills the computer science graduation requirement and the online learning experience credit required by the State of Michigan.</b>		

This course is recommended for all students considering a career in business. The course includes basic business skills important to all business occupations. These skills are also essential adult life skills. The course is designed to cover the following Business, Management, and Administration segments:

- Segment 1: Essential Business Skills (including Word and PowerPoint)
- Segment 2: Essential Employment Skills
- Segment 3: Excel
- Segment 5: Access
- Segment 6: Information Management

A teacher facilitated career planning and exploration unit is presented online, which fulfills the state required online learning experience.

<b>Business Technology 2</b> <b>NOT CURRENTLY OFFERED</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Business Technology 1</b>		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

This course is recommended for students considering a business career and those interested in acquiring the necessary skills to operate their own business. This course is designed to enhance the knowledge and skills learned in Business Technology 1 and to introduce students to the concept of entrepreneurship. Students will learn more advanced features of the various computer applications, including the Windows operating system, Windows Explorer, Microsoft Office, and Internet research skills. Students will establish a mock business, which they will use to apply many course topics.

During second semester, students will use business simulation software to gain additional practice with business management, planning, marketing and promotion strategies, financial management, accounting, record keeping and ethical business practices. Students will also examine the steps necessary to create a business plan based on their mock business, which would be used to obtain the necessary financing to start a business.

The course is designed to cover the following Business, Management, and Administration segments:

- Segment 4: Professional Development
- Segment 7: Entrepreneur
- Segment 8: Advanced Computer Applications
- Segment 9: Financial Analysis and Economics
- Segment 10: Operations and Business Processes
- Segment 11: Business Law
- Segment 12: Strategic Management

<b>Personal Law and Finance</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

This course is designed to provide students with a basic knowledge of several areas of the law that will directly affect their personal lives. In addition, special consideration will be given to the financial responsibilities that arise related to these legal concepts. Topics covered by this course include: criminal law, societal problems, tort law, contract law, consumer protection, rental agreements, buying a car, buying a home, personal finance management, insurance concepts, borrowing money and buying on credit. The knowledge gained throughout this course will better prepare students for the responsibilities they will encounter in their young adult lives.

<b>Computer Applications NOT CURRENTLY OFFERED</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1/2 credit</b>
<b>This course fulfills the computer science graduation requirement and the online learning experience credit required by the State of Michigan.</b>		

This course is designed to improve students' computer skills and prepare them with the skills to succeed in college and the work force. The course will be taught utilizing teacher-facilitated online learning utilizing the Microsoft Imagine Academy curriculum and will cover the following programs: Microsoft Word, Excel, Access, PowerPoint, and the Internet. The students will participate in the following learning experiences: (1) have the opportunity to interact with other students in authentic online learning activities; (2) use technology tools for online research or online projects; (3) have an opportunity for interactive discussion with an instructor or expert; (4) communicate via threaded discussions with other students inside their school.

<b>Advanced Computer Applications NOT CURRENTLY OFFERED</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1/2 credit</b>
<b>Prerequisite: Computer Applications</b>		

In this course students will utilize various software programs as they explore the ever-changing world of technology. Students will also have the opportunity to receive industry level certification utilizing the Microsoft Imagine Academy curriculum (formerly the Microsoft IT Academy). This class is a project oriented independent study class. Students can work toward an MTA or MCSA certifications, which are the core certifications for Information Technology careers. The skills learned in this class will help students better utilize the computer as a tool to create professional looking documents and projects to be used in all aspects of their business and personal lives. Students will be required to complete a research report relevant to the information they are studying. Students can choose to focus on several areas of IT Certification in the following areas: Server, Desktop, Application, Database, or Developer each with several focus and exam areas to concentrate on. This class may be repeated by students in order to earn additional Microsoft Certifications or if students wants to study another area of computers.

## HEALTH AND PHYSICAL EDUCATION

<b>Graduation Credit Requirement:</b>	<b>1/2 credit Health Education</b> <b>1/2 credit Physical Education</b>
<b>Course Requirements:</b>	<b>Health</b> <b>Introduction to Personal Fitness    -or-    Swimming</b>

<b>Health (Required)</b>	<b>Grade: 9</b>	<b>1/2 credit</b>
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Health is a required course for graduation. The course deals with decisions that we make and how they affect our physical, mental and social health. The course covers personal health and wellness, safety skills, nutrition, and substance abuse. **Human Reproduction and Sexually Transmitted Infections is an optional section within the health course. Students can be removed from the reproductive unit upon parental request.**

<b>Introduction to Personal Fitness</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1/2 credit</b>
<b>This course meets the graduation requirement for physical education.</b> <b>This class is a prerequisite for Advanced Personal Fitness, Athletic Conditioning and Leisure sports and Strength and Conditioning. May <u>NOT</u> take at the same time as Athletic Conditioning.</b>		

In this course, students will learn to assess their present fitness level. Using sound principles of training, each student will follow the established weight training program. This class will use the weight room, as well as other methods of training to increase muscular strength and endurance, cardiovascular endurance, flexibility and body composition. This class is a prerequisite for all other PE classes except swimming.

<b>Advanced Personal Fitness</b>	<b>Grade: 10, 11, 12</b>	<b>1/2 credit</b>
<b>Prerequisite: "C" or better in Introduction to Personal Fitness</b> <b>May <u>NOT</u> take at the same time as Athletic Conditioning</b>		

This course is designed for non-athletes or retired athletes who want to continue training. It will take an in-depth look at the components of fitness and nutrition. Other fields of study could include consumer fraud, stress, and weight loss. Students will develop and follow their own training program that is approved by the instructor. Other class group workouts will occur.

<b>Athletic Conditioning</b>	<b>Grade: 10, 11, 12</b>	<b>1/2 credit</b>
<b>Prerequisite: “B ” or better in Introduction to Personal Fitness</b> <b>May <u>NOT</u> take at the same time as Advanced Personal Fitness.</b> <b>Priority will be given to student athletes.</b>		

This course focuses on building muscular strength and endurance through free weights, machine weights, and strength building activities. Proper lifting technique, safety, and spotting will be emphasized. Cardiovascular fitness activities will also be incorporated. The class is designed for students interested in achieving healthy levels of fitness and wellness. Students will design an individualized fitness program to improve cardiovascular fitness, muscular strength/endurance, body composition, and flexibility. Students train according to the skills required for successful participation in all interscholastic athletics. Individualized programs will be developed to fit the needs of each student athlete.

<b>Leisure Sports</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1/2 credit</b>
<b>Prerequisite: Must pass Introduction to Personal Fitness.</b>		

There will be a strong emphasis placed on team and individual competition. Students will be introduced to more post high school leisure time activities. There will be a two week physical testing period at the beginning and end of the semester. Team sports include; flag football, soccer, basketball, floor hockey, volleyball, badminton, dodgeball, ultimate Frisbee, softball, as well as variations to the listed sports. Student participation is mandatory in all class activities.

<b>Beginning Swimming</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1/2 credit</b>
<b>This course meets the graduation requirement for physical education.</b>		

This course is for the individual with little or no swimming ability, but a great deal of desire to learn. Red Cross learn to swim program will be used.

<b>Advanced Swimming</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1/2 credit</b>
<b>This course meets the graduation requirement for physical education.</b>		

This course is geared toward the confident swimmer with moderate to advanced swim ability. The course will include stroke technique and conditioning as well as safety and rescue techniques.

# MUSIC

**Graduation Credit Requirement:** 1 credit Visual, Performing, Applied Arts  
**Course Requirements:** All music courses meet the graduation requirement

<b>Symphonic Band</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
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Symphonic band plays a variety of music ranging from baroque, classical and romantic transcriptions to modern pop and art music for band. The band year begins with band camp the first week of August. Students are expected to attend band camp. The band plays as a marching band during football season and several other marching events. Attendance at all home football games, parades, performances, and concerts is mandatory. The band performs at evening and weekend concerts, band festivals, graduation and several concerts during the school day each year, all of which are mandatory. Upon occasion, the band will have extra after-school rehearsals which are mandatory. Students' grades are often based on attendance to band events. There is a home practice requirement.

<b>Jazz Band</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
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The Jazz Band will participate in instrumental performances at various events throughout the school year. Students will perform music from various styles including swing, blues, Latin jazz, rock, funk, and brass band. Students enrolled in this class will learn the basics of the jazz style, sound, balance and terminology. Students will be introduced to jazz improvisation and its relationship with scales and chord progressions. Basic proficiency on instrument is required. This is a performance class; therefore, students are expected to attend all rehearsals, sectionals and performances.

<b>Concert Choir</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
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This course is offered to students interested in developing their vocal abilities. This group works with four different vocal sections: soprano I, soprano II, Alto and baritone. Emphasis will be on developing good vocal techniques, basic sight-reading skills, basic music theory and developing musicianship both individually and as a group. Music from all different kinds of venues will be covered including classical and popular. There are mandatory performances throughout the year. These include the Christmas concert, choral festival and the spring concert along with after school rehearsals required to prepare for these events.

In addition, students have the opportunity to audition for Chamber Singers. Chamber Singers is an advanced choral group within the concert choir that is selected by auditions in April. This group includes soprano, alto, and baritone singing parts. Emphasis is placed on developing good vocal technique, sight reading skills, and music theory. Chamber Singers performs in a variety of community events, especially during the month of December. Required performances include Christmas and spring concerts, solo ensemble, and choral festival.

# ART

<b>Graduation Credit Requirement:</b>	<b>1 credit Visual, Performing, Applied Arts</b>
<b>Course Requirements:</b>	<b>All art courses meet the graduation requirement</b>

<b>Art 1</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
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Art 1 is a full year class where students learn and explore a variety of both two- and three-dimensional art media and techniques. Areas of study may include drawing, color theory, traditional graphic design, papier Mache, group installation, relief print and more. Students will learn to look at and understand both historical and contemporary art works as they learn the four steps of art criticism along with the elements of principles of art. Each lesson is designed with specific criteria, but allows for students creative thinking skills to flourish. A sketchbook will be made in class and is required to be used for notes, technique practice and rough draft work. There will be both mid-term and final projects and/or portfolios in conjunction with the exams for completion of the class.

<b>Art 2</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Art 1 (“C” or better recommendation)</b>		

Art 2 is a full year class where students have the opportunity to build upon both their two- and three-dimensional media and skills experiences. Students will learn a variety of new media and techniques which may include charcoal, oil pastels, water color paints, colored pencils, printmaking, clay, sculpture, installation and more. Units of study will include more references to art history so that students will begin to make connections between history, culture and the arts. Students will also continue focus on art elements, principles and criticism by looking at and understanding their own art in comparison and contrast with art throughout the ages. Each lesson is designed with specific criteria, but allows for students creative thinking skills to flourish. A sketchbook will be created in class and is required to be used for notes, technique practice rough drafts and weekly drawings. There will be both mid-term and final projects and portfolios in conjunction with the exams for completion of the class.

<b>Art 3</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: “C” or better in Art 1 and Art 2 or teacher approval</b>		

Art 3 is a full year class designed for students to add to their skills and knowledge through the eyes of an artist. Students will continue to enhance their two- and three-dimensional skills throughout the year while studying an artist’s habit of mind by researching artists, coming up with their own idea, selecting materials, creating the artwork by engaging and persisting, reflecting and meeting a deadline so the artwork can be shared. Group critiques and portfolio development will be ongoing throughout the year. Each lesson is designed with specific criteria, but allows for students creative thinking skills to flourish. A sketchbook is provided for weekly visual journal entries and rough draft work. There will be final projects and portfolios in conjunction with the exams for completion of the class.



## CTE ARTICULATION AGREEMENTS

Students who successfully complete the following courses with a “B” or better **may** receive college credit through Delta College.

Building Trades  
Health Care Provider

Machine Tool  
Medical Basics

Conditions and requirements at **Delta College**:

Credit will be granted only for the Delta College course(s) upon successful completion of the course at Ogemaw Heights High School. This is validated by achieving a minimum grade of “B” or better in the course and the Ogemaw Heights High School teacher should feel confident that the student can successfully complete subsequent courses at Delta College. For more information visit Delta College at [www3.delta.edu/artic/?HighSchoolArticulations.html](http://www3.delta.edu/artic/?HighSchoolArticulations.html).

Michigan State Wide Articulation Agreements:

The state of Michigan has articulation agreements with several Michigan colleges for earning college credit in CTE. Visit [www.michigan.gov/mde/0,4615,7-140-2629\\_68426---,00.html](http://www.michigan.gov/mde/0,4615,7-140-2629_68426---,00.html) for more information.

## MACHINE TOOL/MACHINE SHOP

<b>Graduation Credit Requirement:</b> 1 credit Visual, Performing, Applied Arts
<b>Course Requirements:</b> All machines courses meet the graduation requirement

<b>General Metals</b>	<b>Grade:</b> 9, 10, 11, 12	<b>1 credit</b>
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In this a full year course, students will learn the introductory skills in machining and welding including proper operation of engine lathes, vertical mill, drill press, wire feed welding, arc welding, plasma cutting, and oxyacetylene welding. Each student will be given one semester in welding and one semester in machining. Students who take this course will have a basic concept of the manufacturing process as a whole. Upon the proficient completion of this course students will be able to enter into the more advanced Machine Tool 1 and Machine Tool 2 courses.

<b>Machine Tool 1</b>	<b>Grade:</b> 11, 12	<b>2 credits</b>
<b>Prerequisite:</b> C- or better in General Metals or instructor approval		
<b>Articulation:</b> Delta College (see page 29)		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

The Machine Tool 1 course is a continuation of the prerequisite General Metals. This course is designed to give students who are going into any manufacturing or engineering field the advanced skills needed in the machine tool environment. The curriculum is based on the National Institute of Metalworking Skills curriculum and Michigan Machine Tool Segments. During the class areas of advanced study will be engine lathe, vertical mill, CNC programming, blueprint reading, and part inspection. Students will be producing parts that fit within a given tolerance.

<b>Machine Tool 2</b>	<b>Grade:</b> 12	<b>2 credits</b>
<b>Prerequisite:</b> C- or better in Machines 1 or instructor approval		
<b>Articulation:</b> Delta College (see page 29)		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

The Machine Tool 2 course is based on the exit skills needed for industry or college studies in engineering. Students will be working on projects that are applicable to the level of industry today. The studies will continue to follow the NIMS and Michigan Machine Tool Segments curriculum, with emphasize on a work study the last month of class. Each student who completes the class with a proficient grade will be placed in a local industry for a hands-on experience where they will be using the skills they have gained.

## CONSTRUCTION TRADES

<b>Graduation Credit Requirement:</b> 1 credit Visual, Performing, Applied Arts <b>Course Requirements:</b> All construction courses meet the graduation requirement
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<b>Introduction to Building Trades</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
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This is an entry level course that will prepare individuals with the technical skills and knowledge to lay out, cut, fabricate, erect, install, and repair wooden structures and fixtures, using hand and power tools. Students will learn measurement, safety, project planning, and material identification and use. All students will complete projects in the shop facility and be introduced to the field of residential construction. This course will serve as a pre-requisite for the Building Trades class.

<b>Advanced Wood Technology</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: C or better in Intro to Building Trades or instructor approval</b>		
<b>NOT CURRENTLY OFFERED</b>		

This course will cover the field of woodworking in greater detail. Students will learn more advanced joinery and woodworking techniques. Students will be required to incorporate both a door face and a drawer in a project. Student projects will be of a larger scale. Career opportunities in this field will be covered in more detail with a short career research paper being required.

<b>Building Trades</b>	<b>Grade: 10, 11, 12</b>	<b>2 credits</b>
<b>Prerequisite: C+ or better in Intro to Building Trades and instructor approval</b>		
<b>Articulation: Delta College (see page 29)</b>		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

This course is an in-depth exploration of residential and light commercial construction. It will prepare individuals to apply technical knowledge and skills in the building and maintaining of residential and light commercial structures and related properties. It will include instruction in masonry, carpentry, electrical, plumbing, HVAC, painting and drywall installation, finish carpentry and other construction related fields through work on a residential home or light commercial building. Career exploration in the construction industry will be included. Job-site safety will be practiced at all times.

Membership in Skills USA is strongly encouraged.

## **DRAFTING AND DESIGN TECHNOLOGY**

**Graduation Credit Requirement: 1 credit Visual, Performing, Applied Arts**

**Course Requirements: All CAD courses meet the graduation requirement**

<b>CAD CAM</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Pre-requisite: Basic computer proficiency recommended or permission of instructor</b>		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

This course introduces 3D parametric modeling and design techniques. Students will learn skills needed to create parametric models and designs of basic to moderately complex parts and assemblies. Students will learn how to then generate technical drawings from these models.

## AGRICULTURE

**Graduation Credit Requirement: 3 credits (Science)**

**Course Requirements: Biology - or - Animal and Wildlife Biology and  
Plant and Environmental Biology**

<b>Animal and Wildlife Biology</b>	<b>Grade: 9</b>	<b>1 credit</b>
<b>This course counts as a science credit.</b>		

Animal and Wildlife Biology focuses on the scientific principles that underlie the breeding and husbandry of domesticated farm animals. It includes instruction in genetics, health and nutrition, reproduction, husbandry, comparative animal systems as well as growth and development of domesticated farm animals. Natural resources fundamentals such as wildlife and aquaculture are also included. A service learning project is required that will focus on scientific and social implications of agriculture. This project will have research, written and oral presentation components. FFA membership is strongly encouraged.

<b>Plant and Environmental Biology</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Animal and Wildlife Biology</b>		
<b>This course counts as a science credit.</b>		

Plant and Environmental Biology focuses on the chemical, physical, and biological relationships of crops and the soil nurturing them. It includes instruction in the growth and behavior of agricultural crops and the scientific management of soils and nutrients for maximum plant growth, health, and productivity. Environmental and energy systems as well as natural resources fundamentals such as forestry and water resources are also included. A service learning project is required that will focus on scientific and social implications of agriculture. This project will have research, written and oral presentation components. The research and presentation skills learned in Animal and Wildlife Biology will be expanded. FFA membership is strongly encouraged.

<b>Agricultural Leadership</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>Prerequisite: Animal and Wildlife Biology and Plant and Environmental Biology (or Biology with Instructor Approval)</b>		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		
<b>This course does <u>not</u> count as a science credit.</b>		

This course focuses on scientific and social implications of agriculture and natural resources as well as leadership, and career success. It also covers modern business and economic principles involved in the organization, operation, and management of agricultural enterprises. Agricultural Business is the coordination of all activities that contribute to the production, processing, marketing, distribution, financing, and development of agricultural commodities and natural resources. Two service learning projects are required that will focus on scientific and social implications of agriculture. The projects will have research, written and oral presentation components. FFA membership is strongly encouraged.

<b>Agricultural Entrepreneurship</b>	<b>Grade: 12</b>	<b>1 credit</b>
<b>Prerequisite: Animal and Wildlife Biology, Plant and Environmental Biology and Agricultural Leadership -or- Biology and Agricultural Leadership with Instructor Approval</b>		
<b>This course meets the graduation requirement for a math-related course in the final year. This course does <u>not</u> count as a science credit.</b>		

This course focuses on entrepreneurial aspects of agriculture and natural resources as well as leadership, and career success. It also covers modern business and economic principles involved in the organization, operation and management of agricultural enterprises in greater depth than Agricultural Leadership. Two service learning projects are required that will focus on entrepreneurship in agriculture. The projects will include business management records as well as written and oral presentation components. The second semester of this course will involve a work-based learning component. FFA membership and a quality SAE are required.

## Work Based Learning (Formerly known as Cooperative Education Co-Op)

<b>Work Based Learning</b>	<b>Grade: 11, 12</b>	<b>1 credit</b>
<b>This course counts as an elective. Work-site placement must be related to a course a student is taking.</b>		

Work Based Learning (WBL) is an experiential method of learning that formally integrates academic study and classroom theory with practical experience at a work site in the community. The program is based on a partnership between school and the community, and involves the participation of students, teachers, employers and employees. Work Based Learning (WBL) provides students with the opportunity to enhance their in-school learning while developing a greater awareness and understanding of the world of work. It also provides the time to explore a number of occupational areas and to develop skills, knowledge and attitudes needed to become productive and satisfied members of society.

## HEALTH SCIENCE

<b>Medical Basics</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>Articulation: Delta College (see page 29)</b>		

How do you choose a health career? This OHHS class has been designed to give students a practical and academic foundation upon which to make a sound decision. **Health care professions offer many opportunities. There is a great demand nationally for skilled medical professionals.**

Students will:

- ◆ Learn basic medical terminology and its application to oral and written communication skills
- ◆ Receive instruction related to infection control and safe work practices
- ◆ Learn how to interpret medical information from a patient perspective
- ◆ Gain knowledge of the structure and functions of the human body as well as diseases and disorders
- ◆ Receive instruction in health maintenance and disease prevention
- ◆ Receive instruction in basic medical math
- ◆ Obtain certification in CPR/AED for Professional Rescuers and First Aid

Students who plan to take Health Care Provider are required to pass this course, which is designed to provide an academic foundation relative **to all health professions.**

<b>Health Care Provider</b>	<b>Grade: 11, 12</b>	<b>2 credits</b>
<b>Prerequisite: Medical Basics</b>		
<b>Articulation: Delta College (see page 29)</b>		
<b>Uniforms are required at a cost of approximately \$50.00 per set.</b>		
<b>Students are also required to wear athletic shoes with their uniforms.</b>		
<b>A watch with a second-hand is recommended.</b>		
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

This is an excellent program for students desiring to continue their education in the medical field. Throughout the course students will receive classroom and clinical instruction and experience that will prepare them to take the Michigan Nurse Aide Competency Evaluation Program. A forty-eight hour clinical experience is provided in a local nursing home. Students must sign a Clinical Student Disclosure Statement. Bussing is provided for the clinical experience. Certified Nursing Assistants can work in a variety of settings throughout their college experience while earning above the minimum wage.

Students will:

- ◆ Recognize and apply various communication skills
- ◆ Gain experience as a member of a healthcare team
- ◆ Practice legal and ethical behaviors in the healthcare setting
- ◆ Gain an understanding of information technology in the healthcare setting.
- ◆ Obtain basic knowledge about home health care and hospice.
- ◆ Gain competency in personal care skills of the elderly

The culminating activity for this course will provide students with an opportunity to participate in an unpaid work experience in a health care facility. Students are responsible for arranging their transportation. All mandated immunizations, including Hepatitis B, must be current in order to participate in unpaid work experience at the Mid-Michigan Medical Center. The goal of this experience is to enable students to:

- ◆ Explore career options and gain job-specific skills
- ◆ Apply academic knowledge and learn employability and technical skills
- ◆ Foster work-oriented relationships with adults and develop a sense of personal responsibility

## OTHER ELECTIVES

<b>Communications/Media</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1/2 credit</b>
<b>This course meets the graduation requirement for Visual, Performing, Applied Arts.</b>		

This course explores intrapersonal and interpersonal communication. Improvement of self-concept is stressed through knowledge and application of communication skills. Topics covered in this course include a variety of communication tools such as by paper, video, writing, and graphic design. Students will develop interviews and collaboration skills by working in teams for areas such as newsletter, news cast, and mini assignments. This course will also explore business communications such as interoffice communications and customer service skills. Finally, the course will begin to explore careers within the world of communications including radio and television broadcasting, advertising and drama.

<b>Peer to Peer Support (LINKS)</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1/2 credit</b>
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The LINKS class is a peer-to-peer support class where LINK students receive training that will allow them to facilitate positive outcomes in the school experience of a peer with specific learning needs. There will be required work to be done outside of the regular school day online. Regular attendance is vital to being successful in this program.

<b>SAT Prep</b>	<b>Grade: 10, 11</b>	<b>1/2 credit</b>
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The course consists of a mix of lectures and exercises in each session, with ample time allotted for answering sample questions and receiving personalized attention from the instructors. The course is structured so that both the novice and expert test-takers will learn valuable techniques for eliminating wrong answers and choosing correct ones. Each question is discussed in-depth with a step-by-step analysis of the thought processes required to arrive at the correct solution.



## C.O.O.R. CAREER AND TECHNICAL COURSES

<b>Automotive Technology I</b>	<b>Grade: 11, 12</b>	<b>2 credits</b>
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

This program is mainly a hands-on course designed to familiarize the student with the automotive service and repair industry. The first semester will concentrate on design, production, operation, testing, service, basic hand tools, technical reference materials, cooling systems, lubrication systems, charging and starting system parts, and performance of basic service procedures.

The second semester provides instruction in basic electricity, automotive electrical systems, theory and service. Technician certification on the state and national levels, general work ethics and employment preparation are also addressed. Certificate of completion in Fundamentals, electricity and Automotive Service Excellence (ASE) can be earned by the successful student.

Enrollment at C.O.O.R.'s Career and Technical Education Center offers three educational options for the following college credit: (4<sup>th</sup> year math may also be applied upon successful completion of the program)

1. Successfully pass the Accuplacer placement test prior to the beginning of C.O.O.R.'s CTE Automotive Class and earn concurrent credit which is directly transcribed college credit.
2. Enroll in C.O.O.R.'s CTE Automotive Class without taking or passing the Accuplacer placement test and earn articulated credit in that class with a "B" or better grade.
3. Early-Middle College (pending Accuplacer test)

Second year students have the opportunity to continue their career choice by directly enrolling at Kirtland Community College or expanding their educational options by enrolling in a different program at the C.O.O.R. Career Tech Center.

<b>Cosmetology</b>	<b>Grade: 11, 12</b>	<b>2 credits</b>
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

This program demonstrates all aspects an individual would need to pursue a career as a cosmetologist/hairstylist. Practical work would include: shampoos, haircuts, styles, straightening, hair color, permanent waves, manicures, facial treatments, wigs, and hairpieces. Theory will prepare the student for state board exam and college level cosmetology. Students who successfully complete the course may earn up to 350 hours of State required "floor time". Throughout the year, students will test their skills in a hair show competition, attend the Michigan Beauty Hair Show and visit a spa. This program also covers career exploration and employability skills.

Enrollment at C.O.O.R.'s Career and Technical Education Center offers two educational options for the following college credit: (4<sup>th</sup> year math may also be applied upon successful completion of the program)

1. Successfully pass the Accuplacer placement test prior to the beginning of C.O.O.R.'s CTE Cosmetology Class and earn concurrent credit which is directly transcribed college credit.
2. Enroll in C.O.O.R.'s CTE Cosmetology Class without taking or passing the Accuplacer placement test and earn articulated credit in that class with a "B" or better grade.

Second year students have the opportunity to continue their career choice by directly enrolling at Kirtland Community College or expanding their educational options by enrolling in a different program at the C.O.O.R. Career Tech Center.

<b>Public Safety and Corrections</b>	<b>Grade: 11, 12</b>	<b>2 credits</b>
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

The first semester gives the student an in-depth look at the job and skill sets of a law enforcement officer, including court appearances, patrol, arrest, and a total overview of the responsibilities of a police officer. The 2nd semester moves onto Careers & Juvenile Justice, featuring multiple guest speakers from all aspects of the industry. Throughout the year students will have the opportunity to write police reports along with analyzing the working budget, crime scene investigation, and math problems associated within the law enforcement field. As part of the course students will also receive CPR / First Aid Certification and (AED) Automatic Electronic Defibrillator training.

Enrollment at C.O.O.R.'s Career and Technical Education Center offers three educational options for the following college credit: (4th year math may also be applied upon successful completion of the program)

1. Successfully pass the Accuplacer placement test prior to the beginning of C.O.O.R.'s CTE Public Safety Class and earn concurrent credit which is directly transcribed college credit.
2. Enroll in C.O.O.R.'s CTE Public Safety Class without taking or passing the Accuplacer placement test and earn articulated credit in that class with a "B" or better grade.
3. Early-Middle College (pending Accuplacer test)

Second year students have the opportunity to continue their career choice by directly enrolling at Kirtland Community College or expanding their educational options by enrolling in a different program at the C.O.O.R. Career Tech Center.

<b>Welding</b>	<b>Grade: 11, 12</b>	<b>2 credits</b>
<b>This course meets the graduation requirement for a math-related course in the final year.</b>		

C.O.O.R. CTE Welding program is located at Houghton Lake High School and open to any local high school junior or senior. This program offers a variety of skills including welding, machining and computer aided drafting. After completing this course, a student will have a diversity of entry-level industrial arts employment skills. Students will be eligible for a certificate of completion from C.O.O.R. in Welding & Fabrication along with multiple AWS (American Welding Society) certifications along the way. Students may also choose to participate in American Welding Society National Institute of Metal Working Skills certification testing. Outstanding students will even have the opportunity to compete in a Welding Competition at Ferris State University.

## KIRTLAND COMMUNITY COLLEGE DUAL ENROLLMENT

<b>English Composition I ENG 10303 – Semester 1</b>	<b>Grade: 12</b>	<b>1/2 credit</b>
<b>Location Ogemaw Heights High School</b>		
<b>Prerequisite: Existing college prerequisite/admission requirements. (Accuplacer Test)</b>		

Composition I teaches the writing skills necessary to succeed in communicating in career, college or life. Students will write and revise four formal, structured essays, two impromptu essays, and many informal composition works. The course will introduce students to research skills through a short research project applying writing and computer skills. This course is 3 Kirtland Community College credits.

<b>English Composition II ENG 10403 – Semester 2</b>	<b>Grade: 12</b>	<b>1/2 credit</b>
<b>Location Ogemaw Heights High School</b>		
<b>Prerequisite: Satisfactory (C or better) completion of English Composition I (English 10303)</b>		

A continuation of English Composition I, this course emphasizes writing analytical, critical, and argumentative essays and developing effective thinking skills. The course provides practice in library methods, research techniques, and the documented research essay. This course is 3 Kirtland Community College credits.

<b>Math 12000 Intermediate Algebra – Semester 1</b>	<b>Grade: 11, 12</b>	<b>1/2 credit</b>
<b>Location Ogemaw Heights High School</b>		
<b>Prerequisite: Algebra 1 (C or Better) and (Accuplacer Test/PSAT, SAT Score)</b>		

This course includes the study of the properties of real numbers, basic concepts of algebraic operations, solving and graphing linear and nonlinear functions, systems of equations, complex numbers, quadratic functions, factoring, rational expressions, and basic interpretations of tables and graphs of data. A graphing calculator is required. Prerequisite: MTH 07300 or Algebra 1 (C or better). This course is 4 Kirtland Community College credits.

<b>Math 13000 College Algebra – Semester 2</b>	<b>Grade: 11, 12</b>	<b>1/2 credit</b>
<b>Location Ogemaw Heights High School</b>		
<b>Prerequisite: Math 12000 or requisite met and requisite placement test scores</b>		

This is a one-semester course designed to prepare students for the study of calculus. The topics to be covered include a review of the fundamentals of algebra, relations, functions, solutions, of first- and second-degree equations and inequalities, systems of equations, determinants, binomial theorem, mathematical induction, polynomial functions, and theory of equations, analytic geometry and conic sections, geometric and arithmetical sequences, and series, and miscellaneous topics. Calculators will be used for selected topics. Prerequisite: MTH 12000 or requisite met (Math Credit). This course is 4 Kirtland Community College credits.

<b>Introduction to Psychology PSY 10100 – Semester 1</b>	<b>Grade: 11, 12</b>	<b>1/2 credit</b>
<b>Location Ogemaw Heights High School</b>		
<b>Prerequisite: Met with placement testing (Accuplacer Test/PSAT, SAT Score)</b>		

This course is a study of human and animal behavior with reference to perception, learning memory, thinking, emotions, intelligence, aptitude, and personality. The need for scientific investigation of behavior is stressed throughout the course. In addition, the behavioral neuroscience, psychodynamic, social/behavioral, cognitive, and humanistic viewpoints are considered for analysis of psychological phenomena.

<b>Interpersonal Communications SPE 11401</b>	<b>Grade: 11, 12</b>	<b>1/2 credit</b>
<b>Location Ogemaw Heights High School</b>		
<b>Prerequisite: Met with placement testing (Accuplacer Test/PSAT, SAT Score)</b>		

Interpersonal Communication is a course aimed at the study and application of interpersonal communication concepts with a focus on perception, verbal and nonverbal messages, listening, empathy, conflict management, and relationships. Students will practice skills to improve their communication competence in their personal, civic, and professional lives.

## SPECIAL SERVICES PROGRAM

Placement in the Special Services program is determined through the Individual Education Planning Team process (IEP). **Students must have a current IEP to access courses in this program.**

Students must take courses that are aligned to the Michigan Merit curriculum (MMC) to earn a diploma. Some courses offered through the Special Services program count toward a Certificate of Attainment but not toward a diploma.

Courses that do not require a prerequisite can be taken in any order.

<b>Language 3</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
<b>This course does not count as an English credit requirement for the MMC.</b>		

This course satisfies an English credit for students following a Certificate Curriculum. Emphasis is on improving the language arts skills of basic reading, reading comprehension, writing and communication. Social skills such as listening, taking turns, working together in a positive manner, participating, and minimizing inappropriate behaviors also are addressed in this class.

<b>Language 4</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
<b>This course does not count as an English credit requirement for the MMC.</b>		

This course satisfies an English credit for students following a Certificate Curriculum. Students with an IEP who are following a Diploma Curriculum may take this class as an English supporting elective, but it does not satisfy diploma requirements for English. Emphasis is on improving the language arts skills of basic reading, reading comprehension, writing and communication. Social skills such as listening, taking turns, working together in a positive manner, participating, and minimizing inappropriate behaviors also are addressed in this class.

<b>Math 1</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
<b>This course does not count as a math credit requirement for the MMC.</b>		

This course will focus on practical math applications, from balancing a checkbook to getting the best price at a grocery store. Students will explore budgets, including skills required for future independence. This course will also address fractions, decimals, and measurements (both metric and us customary), telling time, identification of money and making change based on individual student needs. Access is based on IEP recommendation. This course does not count as a math credit requirement for the MMC.

<b>Math 2</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
<b>This course does not count as a math credit requirement for the MMC.</b>		

This is a full year course designed for students who need remediation before taking Algebra. This course will focus on computation of whole numbers, fractions, decimals and integers. The student will also be introduced to exponents and square roots. Access is based on IEP recommendation. This course does not count as a math credit requirement for the MMC.

<b>Math 5 - Geometry Concepts</b>	<b>Grade: 10, 11</b>	<b>1 credit</b>
<b>This course is designed for students with a current IEP.</b>		
<b>Prerequisite: Math 3 and Math 4 (Algebra Concepts A and B) or Algebra 1</b>		

This course uses an integrated math approach to teach the essential geometry content expectations. This will fulfill the Geometry graduation requirement.

<b>Science 1—Biology</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
<b>This course does not count as a science credit requirement for the MMC.</b>		

This course focuses on the study of living things, how they relate to one another, and how they affect the well-being of people. Content includes: Cells and energy; genetics; simple to complex organisms; the recycling of substances needed for life (oxygen, carbon dioxide, nitrogen, water); environments and resources; evolution; and human body systems.

<b>Science 3—Earth Science</b>	<b>Grade: 10, 11, 12</b>	<b>1 credit</b>
<b>This course does not count as a science credit requirement for the MMC.</b>		

This course looks at the relationship between earth and space. Students will study the basics of geology, oceanography, meteorology and astronomy. Emphasis will be on how changes and interactions of the Earth's land, water and air affect our lives. Chemistry and physical science units are included.

<b>Social Studies 1 – World History/Geography</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
<b>This course does not count as a social studies credit requirement for the MMC.</b>		

This course satisfies a social studies credit for students following a Certificate Curriculum. Students with an IEP who are following a Diploma Curriculum may take this class as an elective. Emphasis is on improving academic skills through the awesome content of World History and Geography including the physical features and variety of cultures in our world.

<b>Social Studies 2 – U.S. History/Geography</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
<b>This course does not count as a social studies credit requirement for the MMC.</b>		

This course satisfies a social studies credit for students following a Certificate Curriculum. Students with an IEP who are following a Diploma Curriculum may take this class as an elective, but it does not satisfy diploma requirements for social studies. Emphasis is on improving academic and social skills, while supporting IEP goals through the awesome content of US History and Geography. We begin with the first Americans who arrived thousands of years ago and will continue through history to the here and now, including a focus on current events. We will study the physical and cultural geography of our great nation. US Government content, including the Core Democratic Values and Taxation, will be examined in this class.

<b>Community Based Instruction (CBI) Work Experience</b>	<b>Grade: 11, 12</b>	<b>2 credits</b>
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The CBI experience is a partnership between local business and school personnel to facilitate community-based work experiences for students to assist them in evaluating potential career options. Students will draw upon real life experiences in the work environment to acquire authentic skills necessary for post-secondary transition.

<b>Life Centered Career Education 1 (LCCE1)</b>	<b>Grade: 11, 12</b>	<b>2 credits</b>
<b>This course counts as an English and Math credit requirement for a Certificate of Attainment.</b>		

This course is designed to assist students in becoming productive workers and independent adults. This will be accomplished through collaboration with parents, other educators, community service personnel and the business community. It is comprised of three curricular domains: Daily living skills, personal social skills, and career preparation.

<b>Life Centered Career Education 2 (LCCE2)</b>	<b>Grade: 11, 12</b>	<b>2 credits</b>
<b>This course counts as an English and Math credit requirement for a Certificate of Attainment.</b>		

This course is designed as a continuation of Life Centered Career Education (LCCE1)

<b>Academic Strategies</b>	<b>Grade: 9, 10, 11, 12</b>	<b>1 credit</b>
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Academic Strategies is designed to provide students with a current IEP the opportunity to seek additional help and time to complete general education coursework. Students also will be required to complete assigned curriculum intended to improve academic study skills, organizational skills, work habits, career planning and self-management.

## EDUCATION DEVELOPMENT PLAN (EDP)

An Education Development Plan (EDP) provides ongoing documentation of an individual's career and educational decisions and a plan of action that guides the learner in accomplishing these goals. As middle school and high school students develop their EDPs, they learn a decision-making process. They will continue to use these same career decision-making strategies as they progress in the education/training process, enter employment, and change careers throughout their lifetime.

The following general principles are important to consider in defining EDPs.

- The primary emphasis of the EDP is the learner's statement of career goals and a plan of action for reaching them.
- The EDP is learner-centered with each learner taking an interactive role in its development.
- EDPs require updating at least annually and provide for a progression of planning activities as the learner advances through the grades.
- All learners may benefit from participating in an EDP process.
- To be effective, EDPs are dependent upon a larger career development process that includes career pathways, career awareness and exploration, and career assessment.

These basic elements are recommended to be part of all EDPs:

1. **Career Goal(s):** Each learner identifies a career pathway goal(s). As students mature, they will also identify specific job titles.
2. **Education/Training Goal(s):** The learner identifies the level of educational preparation he or she wants to attain. Options include on-the-job training, military service, apprenticeship programs, trade and technical education programs, certificate programs or 2-year associate degree programs offered by community colleges, 4-year university programs, and advanced university degree or professional preparation programs.
3. **Assessment Results:** The learner analyzes assessments and summarizes the results in a few words, highlighting the information that is relevant to making career decisions. Students can use results of assessments such as PSAT or WorkKeys or online assessments to guide them.
4. **Plan of Action:** The learner lists career awareness and career exploration activities along with work-based learning activities, which may include volunteer or work-related experiences, job shadowing, or mentorship programs. The learner also makes course selections that will prepare him or her for continuing education and achievement of career goals. The student may indicate plans to apply to colleges, universities, or other training facilities and to secure financial assistance.
5. **Parent Consultation and Endorsement:** Parents of high school students should have the opportunity to review and endorse their child's EDP. Parents may request information regarding employment trends and the education and skill requirements needed to prepare for successful employment.





# OGEMAW HEIGHTS HIGH SCHOOL FOUR-YEAR EDUCATIONAL PLAN

NAME \_\_\_\_\_ CAREER GOAL \_\_\_\_\_

CAREER PATHWAY \_\_\_\_\_

## 9<sup>th</sup> GRADE – FRESHMAN YEAR

	<u>Credit</u>
1. English 9	1
2. World History/Geography	1
3. Algebra 1 <b>or</b> Geometry	1
4. Biology <b>or</b> Animal/Wildlife Biology	1
5. Health Intro Personal Fitness <b>or</b> Swim	½ + ½
6. _____	_____

## 10<sup>th</sup> GRADE – SOPHOMORE YEAR

	<u>Credit</u>
1. English 10 <b>or</b> Pre-AP English	1
2. U.S. History/Geography <b>or</b> AP U.S. History	1
3. Geometry <b>or</b> Algebra 2	1
4. Physical Science <b>or</b> Plant/Environmental Biology	1
5. _____	_____
6. _____	_____

## 11<sup>th</sup> GRADE – JUNIOR YEAR

	<u>Credit</u>
1. English 11 <b>or</b> AP Language	1
2. Government Economics	½ + ½
3. Algebra 2 <b>or</b> Algebra 2A <b>or</b> Pre-Calc. <b>or</b> AP Stats <b>or</b> KCC Alg.	1
4. Physical Science <b>or</b> Elective Science _____	1
5. _____	_____
6. _____	_____

## 12<sup>th</sup> GRADE – SENIOR YEAR

	<u>Credit</u>
1. English 12 <b>or</b> AP Literature 1 <b>or</b> KCC Comp.	
2. Math <b>or</b> Math-Related _____	1
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____

### Graduation Requirements Class of 2025 & Beyond

English	4 credits
Social Studies	3 credits
Math	4 credits
Science	3 credits
Physical Education	½ credit
Health	½ credit
Visual/Applied Arts	1 credit
World Language	2 credits
Elective Credits	4 credits
On-line Learning Experience	

Credits required for graduation 22

Compile a list of the alternate courses you would like to take if your first choices are not available. List these courses in priority order. It may be necessary to substitute one of these courses for a course you selected if there are schedule conflicts.

### Alternates (in priority order)

_____
_____
_____
_____
_____
_____
_____
_____

Universities recommend a minimum of 3 core academic courses in Grade 12.

## **CAREER DEVELOPMENT CHECKLIST FOR PARENTS**

- ✓ Learn what your child likes to do. Identify hobbies, interests, favorite academic subjects, and after school activities. Think about careers that would fit.
- ✓ Discuss results of aptitude tests and career interest inventories with your child.
- ✓ Discuss the things that you enjoy about your career with your child.
- ✓ Provide a positive role model by sharing your personal career experiences.
- ✓ Arrange for your child to talk to people working in career fields he or she is interested in exploring.
- ✓ Be supportive of your child's decisions and choices and realize they may change. Think of career development as a life-long process.
- ✓ Suggest that your child explore career opportunities in non-traditional career fields—those that were once considered only for males or females.
- ✓ Find out what Career Preparation activities and information are available at your school and in your community.
- ✓ Ask a school guidance counselor or teacher where you can find additional career information.
- ✓ Ask a school guidance counselor how you can use Career Cruising.
- ✓ Attend career-oriented events with your child.
- ✓ Start a career folder and collect all kinds of information on careers from newspapers, magazines, the Internet, conferences, etc. Visit the library to learn what resources are available there.
- ✓ Help your child prepare a four-year course plan that includes a variety of academic courses, career and technical education courses, and other electives. Be sure technology skills are included in the courses selected.
- ✓ Consider internships, mentorships, job shadowing, cooperative education, on-the-job training, career consultations, and volunteer activities as part of your child's career preparation.
- ✓ Help your child maintain a career portfolio. Include documentation of academic skills, personal management skills, and teamwork skills, attendance records, achievement test scores, work samples, a resume, awards, certificates, etc.
- ✓ Discuss how your child can develop and document employability skills. Point out the importance of a good academic record and attendance record. Help your child learn responsibility by assigning household chores and encouraging participation in neighborhood cleanups and community volunteer activities.
- ✓ Discuss the benefits of participating in a variety of school or community activities.
- ✓ Explore a variety of training opportunities available to high school graduates including university training, community college training, and on-the-job or specialized training.

## CAREER PATHWAYS

In 1998 the Michigan Department of Education and the Michigan Department of Career Development introduced the Career Preparation System. The System was enacted with the simple belief that sooner or later all students will seek employment. Economic independence should be a goal for all students and certainly a goal for all parents.

Career Pathways, like Education Development Plans (EDPs), are key components of the larger Career Preparation System. The State of Michigan has adopted the concept of six different Career Pathways. These are six broad groupings of careers that share similar characteristics and whose employment requirements call for many common interests, strengths, and competencies. The groupings encompass the entire spectrum of career options, providing opportunities for all students and all ability levels.

Use of the Career Pathways allows the learner to map out the relationships between course offerings, in school activities, out of school experiences, and additional training following high school graduation. Career Pathways allow students to project the necessary training for different clusters of jobs. Career Pathways are not to be viewed as tracks or trenches but as a means of looking at the aligned steps and experiences that are appropriate in developing the learner's education and employment plan.

- ❖ Career Pathways provide a plan for all students, regardless of their interests, abilities, talents, or desired levels of education. All pathways have equal dignity.
- ❖ Career Pathways provide all students with areas of focus, along with flexibility and a variety of ideas to pursue as they make decisions regarding course selections.
- ❖ Career Pathways allow students to see greater relevance between their selected classes and their future careers and help them understand the transfer of skills and experiences from school to the workplace. These connections result in improved student achievement and greater student interest.
- ❖ Career Pathways help parents and other adults with parenting responsibilities provide better assistance to students as they discuss careers and select classes.
- ❖ Integrating Career Pathways into the curriculum improves student attendance, retention, achievement, career decision-making, and career goal attainment.
- ❖ Career Pathways help students become aware of the broad range of career options available and of the need to continue learning throughout their adult lives to be prepared for career opportunities in a rapidly changing workplace.



## ARTS AND COMMUNICATIONS

*Are you artistic? musical? a creative thinker? Are you imaginative, innovative, and original? Do you like to communicate ideas? Are you skilled in writing? Do you seek opportunities for self-expression through singing, dancing, or acting? Do you like making crafts, drawing, or taking photos? This may be the career pathway for you!*

***Careers in this pathway are related to the arts and entertainment including:***

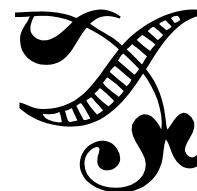
- humanities
- communications
- the performing arts
- visual, literary, and media arts

***Personal characteristics for this pathway include the ability to:***

- play a musical instrument
- demonstrate good writing skills
- entertain others through singing or acting
- seek opportunities for self-expression
- find multiple solutions to a problem
- do oral reports or speeches well

***Activities for students interested in this pathway include:***

- Art Club
- art lessons
- music lessons
- dance classes
- Student Council
- photography classes
- school plays and musicals
- volunteer work at the Victorian Art Fair
- 4-H sewing, knitting, crocheting, basket weaving
- 4-H dance, performing arts, cake decorating, ceramics
- volunteer work for the Kirtland Performing Arts program



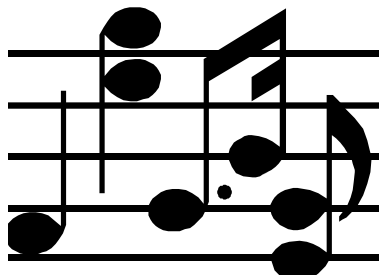


## ARTS AND COMMUNICATIONS

**Arts and Communications** careers are related to the humanities, the performing, visual, literary, and media arts. Samples of careers in this pathway are listed below. To find out more about these careers, use Career Cruising [www.careercruising.com](http://www.careercruising.com) or the *Occupational Outlook Handbook* [www.bls.gov/oco/](http://www.bls.gov/oco/) or the *Occupational Information Network O\*NET OnLine* <http://online.onetcenter.org/>.

Actor/Actress  
Advertising Agent  
Advertising Copywriter  
Animation Artist  
Archeologist  
Archivist & Curator  
Audiovisual Technician  
Author  
Bookbinder  
Broadcast Technician  
College Administrator  
College Instructor  
Commercial Artist  
Dancer  
Draftsman  
Elementary School Teacher  
Fashion Designer  
Floral Designer (Florist)  
Graphic Designer  
Illustrator  
Interior Designer

Interpreter & Translator  
Journalist  
Manufacturing Painter  
Merchandise Displayer  
Model  
Musician & Composer  
Painter & Sculptor  
Paperhanger  
Photo Process Worker  
Photographer  
Potter  
Printing Occupations  
Proofreader  
Public Relations Specialist  
Radio & Television Announcer  
Radio Operator  
Secondary School Teacher  
Sports Professional  
Technical Writer  
Telecommunications Analyst  
Web Developer





## BUSINESS, MANAGEMENT, MARKETING AND TECHNOLOGY

*Do you enjoy being a leader, organizing people, planning activities, and talking? Do you like to work with numbers or ideas? Do you enjoy carrying through with an idea and seeing the end product? Do you like things neat and orderly? Would you enjoy balancing a checkbook, following the stock market, holding an office in a club, surfing the Internet? Can you convince others to buy or use a product or service? This may be the career pathway for you!*

***Careers in this pathway are related to all aspects of business including:***

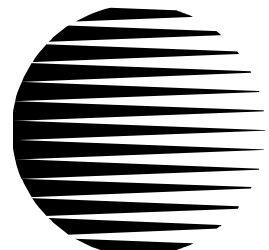
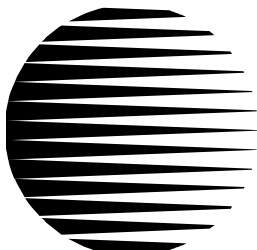
- economics
- entrepreneurship
- human resources
- marketing and sales
- business administration
- finance and accounting
- computer and information systems

***Personal characteristics for this pathway include the ability to:***

- enjoy being the leader
- use computer programs easily
- demonstrate good skills in math
- be comfortable asking others to buy products to help with fundraising
- enjoy helping others to plan events for a school, church, or neighborhood

***Activities for students interested in this pathway include:***

- join Business Professionals of America (BPA)
- read business magazines and newspapers
- work in an office or retail business
- serve as an officer of a club
- join the Octagon club
- join an athletic team
- join Student Council
- join FFA





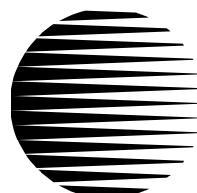
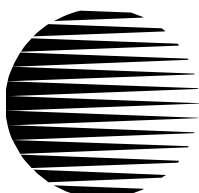
## BUSINESS, MANAGEMENT, MARKETING AND TECHNOLOGY

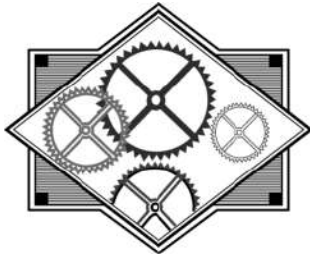
**Business, Management, Marketing, and Technology** careers are related to all aspects of business including accounting, business administration, finance, information processing, and marketing. Samples of careers in this pathway are listed below. To find out more about these careers, use Career Cruising [www.careercruising.com](http://www.careercruising.com) or the *Occupational Outlook Handbook* [www.bls.gov/oco/](http://www.bls.gov/oco/) or the *Occupational Information Network O\*NET OnLine* <http://online.onetcenter.org/>.

Accountant & Auditor  
Actuary  
Advertising Agent  
Advertising Copywriter  
Airport Manager  
Air-Traffic Controller  
Assessor  
Audiovisual Technician  
Auto Parts Service Clerk  
Auto Salesperson  
Bank Teller  
Bill & Account Collector  
Billing Clerk  
Bookkeeper  
Brokerage Clerk  
Building Manager  
Casino Industry Occupations  
City Manager  
Clerical Supervisor  
College Administrator  
Controller  
Computer Operator  
Computer Programmer  
Computer Security Professional  
Computer Service Technician  
Computer Systems Analyst  
Counter Clerk  
Court Administrator  
Court Reporter  
Data Entry Clerk

Dispatcher  
Duplicating Machine Operator  
E-Commerce Manager  
Economist  
File Clerk  
Financial Analyst  
Financial Institution Manager  
Food Service Manager  
Health Administrator  
Hotel/Motel Manager  
Human Resource Manager  
Information Systems Manager  
Insurance Adjuster  
Insurance Agent  
Insurance Claims Clerk  
Legal Assistant  
Loan & Credit Clerk  
LAN Administrator  
Manufacturers' Representative  
Manufacturing Inspector  
Market-Research Analyst  
Mathematician  
Medical Records Personnel  
Merchandise Displayer  
Merchant Marine Officer  
Messenger  
Meter Reader  
Microcomputer Specialist  
Office Machine Operator  
Office Machine Repairer  
Payroll Clerk

Personnel Clerk  
Photo Process Worker  
Placement Specialist  
Political Scientist  
Postmaster & Mail Supervisor  
Production Coordinator  
Purchasing Agent  
Railroad Conductor  
Real Estate Agent  
Real Estate Appraiser  
Receptionist  
Retail Buyer  
Retail Sales Agent  
Retail Sales Manager  
Sales Engineer  
School Administrator  
Secretary  
Shipping & Receiving Clerk  
Statistician  
Stock Clerk  
Stockbroker  
Survey Worker  
Tax Preparer  
Telephone Operator  
Telephone Installer & Repairer  
Travel Agent  
Underwriter  
Wholesale Buyer  
Wholesale Sales Manager  
Word Processor





## ENGINEERING/MANUFACTURING AND INDUSTRIAL TECHNOLOGY

*Are you mechanically inclined and practical? Do you like reading diagrams and blueprints and drawing building structures? Are you curious about how things work? Can you use tools with exactness and accuracy? Do you enjoy building, fixing, or repairing things? Do you like to discover, research, or solve problems? Would you enjoy painting a house, repairing cars, wiring electrical circuits or woodworking? This may be the career pathway for you!*

***Careers in this pathway are related to technologies necessary to design, develop, install or maintain physical manufacturing systems:***

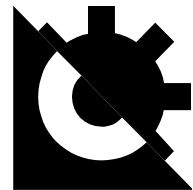
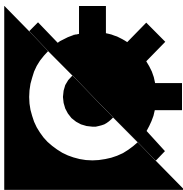
- construction trades and related industries
  - engineering and related areas
    - manufacturing technology
      - mechanics & repairers
        - precision production
          - electronics

***Personal characteristics for this pathway include the ability to:***

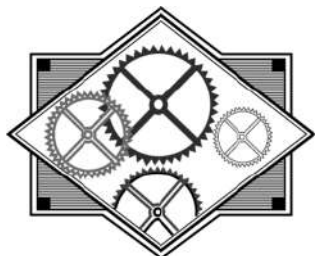
- be familiar with geometry, algebra and some physics
- want to see immediate results from the work performed
- use tools and mechanical equipment with little help from others
  - enjoy activities that involve using tools, machinery
    - like to find solutions to difficult problems

***Activities for students interested in this pathway include:***

- join Skills USA
- MITES Competition
- build or refinish furniture
- Habitat for Humanity Volunteer
- repair small electrical appliances
- Delta Technology Solutions Competition
- read mechanical or automotive magazines
- do home repairs including plumbing and electrical wiring







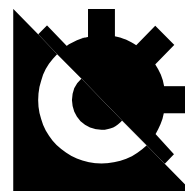
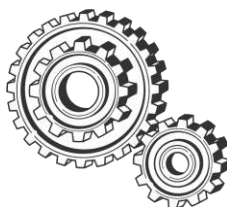
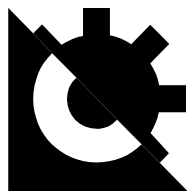
# ENGINEERING/MANUFACTURING AND INDUSTRIAL TECHNOLOGY

**Engineering/Manufacturing and Industrial Technology** careers are related to technologies necessary to design, develop, install, or maintain physical systems. Samples of careers in this pathway are listed below. To find out more about these careers, use Career Cruising [www.careercruising.com](http://www.careercruising.com) or the *Occupational Outlook Handbook* [www.bls.gov/oco/](http://www.bls.gov/oco/) or the *Occupational Information Network O\*NET OnLine* <http://online.onetcenter.org/>.

Aircraft Pilot  
Air-Traffic Controller  
Alarm Service Technician  
Architect  
Assembly Line Worker  
Auto Body Repairer  
Auto Mechanic  
Auto Service Advisor  
Biomedical Engineer  
Brickmason & Stonemason  
Building Maintenance  
Cabinetmaker  
Carpenter  
Carpet Installer  
Cement Mason  
Chemical Engineer  
Chemist  
Civil Engineer  
Climate Control Mechanic  
Construction Inspector  
Construction Laborer  
Crane & Hoist Operator  
Cutting Machine Operator  
Drafter  
Dry Wall Installer  
Electrical Engineer  
Electronics Technician  
Electrician  
Farm Equipment Mechanic  
Flight Engineer  
Floor Layer

Freight & Material Handler  
Furnace Operator  
Furniture & Wood Finisher  
Glazier  
Grinding Machine Operator  
Heavy Equipment Operator  
Highway Maintenance Worker  
Industrial Engineer  
Industrial Truck Operator  
Institutional Housekeeper  
Insulation Worker  
Jeweler and Watch Repairer  
LAN Administrator  
Laser Technician  
Lathe Operator  
Locksmith  
Logging Worker  
Machine Tool Setter  
Machinist  
Marine Engineer  
Manufacturers' Representative  
Manufacturing Engineer  
Manufacturing Inspector  
Mechanical Engineer  
Metal Heater  
Metallurgical Technician  
Metal Roller & Finisher  
Millwright  
Miner  
Mold Maker/Coremaker  
Network Engineer

Nuclear Engineer  
Oil & Gas Drilling Worker  
Packaging Machine Operator  
Paperhanger  
Patternmaker & Model Maker  
Petroleum Technician  
Plumber and Pipe Fitter  
Polisher & Buffer  
Power Station Operator  
Printing Press Operator  
Production Coordinator  
Punch-Press Operator  
Railway Equipment Repairer  
Rigger  
Robot Technician  
Roofer  
Safety Engineer  
Sailor and Deckhand  
Sawyer  
Sheet Metal Worker  
Small Engine Repairer  
Software Engineer  
Stationary Engineer  
Structural Iron Worker  
Surveyor  
Telephone Installer & Repairer  
Tile Setter  
Tool and Die Maker  
Truck Driver  
Upholsterer  
Utilities Lineperson  
Welder





## HEALTH SCIENCES

*Do you enjoy helping people? Do you like to care for people or animals that are sick? Do you want to help them stay well? Are you interested in diseases and in how the body works? Do you read books or watch programs about medicine or science? Would it be fun to learn first aid, volunteer at a hospital or veterinary clinic? This may be the career pathway for you!*

**Careers in this pathway are related to the promotion of health and the treatment of injuries, conditions, and disease including:**

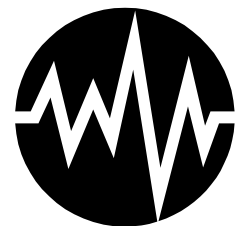
- *nursing*
- *dentistry*
- *medicine*
- *physical fitness*
- *diet and nutrition*
- *veterinary sciences*
- *therapy and/or rehabilitation*
- *research, prevention, and treatment*

**Personal characteristics for this pathway include the ability to:**

- *be interested in health issues*
- *demonstrate ease when working with people*
- *care about the well being of people and animals*
- *be interested in learning how the body works*
- *demonstrate good skills in science*

**Activities for students interested in this pathway include:**

- *HOSA (Health Occupation Students of America)*
- *volunteer for a community service program*
- *participate in physical fitness programs*
- *do volunteer work for the Red Cross*
- *read medical or scientific magazines*
- *volunteer at a health care facility*
- *4-H food and nutrition club*
- *participate in athletics*
- *be an athletic trainer*



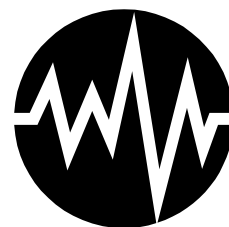


## HEALTH SCIENCES

**Health Sciences** careers are related to the promotion of health as well as the treatment of injuries, conditions, and disease. Samples of careers in this pathway are listed below. To find out more about these careers, use Career Cruising [www.careercruising.com](http://www.careercruising.com) or the *Occupational Outlook Handbook* [www.bls.gov/oco/](http://www.bls.gov/oco/) or the *Occupational Information Network* O\*NET OnLine <http://online.onetcenter.org/>.

Animal Caretaker  
Biochemist  
Biological Scientist  
Biomedical Engineer  
Biomedical Equipment Technician  
Chiropractor  
Clinical Laboratory Worker  
Dental Assistant  
Dental Hygienist  
Dental Laboratory Technician  
Dentist  
Diagnostic Medical Sonographer  
Dietetic Technician  
Dietitian  
Dispensing Optician  
Electrocardiograph Technician  
Electroencephalograph Technician  
Emergency Medical Technician  
Health Administrator  
Home Health Aide  
Industrial Hygienist  
Laser Technician  
Licensed Practical Nurse  
Medical Assistant  
Medical Records Personnel  
Medical Special Procedures Technologist  
Mortician  
Nuclear Medicine Technologist

Nurse Aide/Orderly  
Nurse Anesthetist  
Nursing Home Administrator  
Occupational Therapist  
Occupational Therapy Assistant  
Optical Laboratory Technician  
Optometric Assistant  
Optometrist  
Orthotist & Prosthetist  
Pharmacist  
Pharmacy Technician  
Physical Therapist  
Physical Therapist Assistant & Aide  
Physician  
Physicist  
Physician's Assistant  
Podiatrist  
Psychiatrist  
Psychologist  
Radiologic Technician  
Registered Nurse  
Respiratory Therapist and Technician  
Speech-Language Pathologist &  
Audiologist  
Surgical Technician  
Veterinarian  
Veterinary Assistant





## HUMAN SERVICES

*Are you friendly, open, outgoing, understanding, and cooperative? Do you like to work with people to solve problems? Is it important to you to do something that makes life better for other people? Do you enjoy communicating new ideas to others? Do you like to help friends with family problems? Do you like reading, storytelling, traveling, or tutoring young children? This may be the career pathway for you!*

***Careers in this pathway are related to economic, political, and social systems including:***

- military
- education
- hospitality
- government
- social services
- leisure and recreation
- child and family services
- religion and related careers
- law enforcement and legal education

***Personal characteristics for this pathway include the ability to:***

- demonstrate good writing skills and good speaking skills in front of a group
  - be interested in helping people solve their problems
  - interact with people in a friendly manner
  - enjoy helping people learn new skills
  - do several things at the same time
  - prefer working with people

***Activities for students interested in this pathway include:***

- tutoring students
- being a scout leader
- serving as a peer counselor
- coaching children in sports activities
- volunteering for recreational programs
- being an athletic team member, manager, or trainer
- volunteering for Ogemaw County Services programs
- volunteering at the library or for reading programs
- volunteering as a counselor at a youth camp
- babysitting or providing child care services
- planning family recreational activities
- officiating athletic events





## HUMAN SERVICES

**Human Services** careers are related to child care, education, hospitality, and the economic, political, and social systems. Samples of careers in this pathway are listed below. To find out more about these careers, use Career Cruising [www.careercruising.com](http://www.careercruising.com) or the *Occupational Outlook Handbook* [www.bls.gov/oco/](http://www.bls.gov/oco/) or the *Occupational Information Network* O\*NET OnLine <http://online.onetcenter.org/>.

Activities Therapist  
Administrative Law Judge  
Amusement Park Attendant  
Anthropologist  
Baker  
Bank Teller  
Barber  
Bartender  
Bellhop & Baggage Porter  
Bicycle Repairer  
Building Manager  
Bus Driver  
Cannery Worker  
Child Care Worker  
Clergy  
College Administrator  
College Instructor  
Compliance/Enforcement Inspector  
Cook & Chef  
Corrections Officer  
Cosmetologist  
Court Administrator  
Custom Clothing Maker  
Dispatcher  
Driver/Sales Worker  
Driving Instructor  
Elementary School Teacher  
Employment Counselor  
Equipment & Vehicle Cleaner  
F.B.I. Agent  
Fire Fighter  
Fire Fighting Supervisor  
Fire Inspector  
Flight Attendant  
Floral Designer (Florist)

Food Drier & Roaster  
Food Preparation Worker  
Food Service Manager  
Guard  
Halfway House Manager  
Historian  
Hotel/Motel Manager  
Human Resource Manager  
Industrial Sewing Machine Operator  
Industrial Traffic Manager  
Institutional Housekeeper  
Interior Designer  
Interpreter & Translator  
Jeweler & Watch Repairer  
Judge  
Laundry/Dry Cleaning Worker  
Lawyer  
Librarian  
Library Technician & Assistant  
Locksmith  
Mail Carrier  
Mail Clerk  
Marriage Counselor  
Meat Cutter  
Merchant Marine Officer  
Meter Reader  
Nursing Home Administrator  
Packaging Machine Operator  
Parking Enforcement Officer  
Parking Lot Attendant  
Personnel Clerk  
Placement Specialist  
Police Officer and Detective  
Police Supervisor  
Polygraph Examiner

Postal Clerk  
Postmaster & Mail Supervisor  
Private Investigator  
Probation & Parole Officer  
Psychiatric Aide & Technician  
Psychiatrist  
Psychologist  
Public Relations Specialist  
Recreation Worker  
Refuse Collector  
Religious Worker  
School Administrator  
School Counselor  
Secondary School Teacher  
Sheriff & Bailiff  
Shoe Repairer  
Social Service Aide  
Social Worker  
Sociologist  
Special Education Teacher  
Speech-Language Pathologist & Audiologist  
Sports Professional  
Substance Abuse Counselor  
Taxicab Driver  
Teacher Aide  
Travel Agent  
Truck Driver  
Upholsterer  
Urban & Regional Planner  
Usher  
Vocational Education Teacher  
Vocational Rehabilitation Counselor  
Waiter/Waitress  
Welfare Eligibility Worker





## NATURAL RESOURCES AND AGRISCIENCE

*Are you a nature lover? Are you practical and curious about the physical world? Are you interested in plants and animals? Do you like to be physically active? Are you concerned about the environment? Do you like to participate in outdoor activities? Do you enjoy hunting or fishing? Do you like to garden or mow the lawn? This may be the career pathway for you!*

***Careers in this pathway are related to nature and agriculture including:***

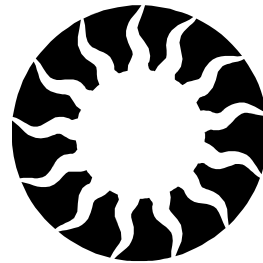
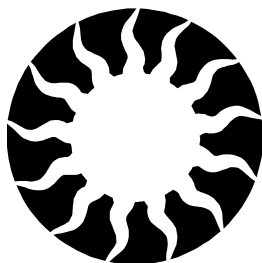
- wildlife
- forestry
- fisheries
- horticulture
- earth sciences
- natural resources
- agriculture & agriscience
- environmental conditions

***Personal characteristics for this pathway include the ability to:***

- demonstrate interest in the care of our environment
  - enjoy working with animals
  - prefer working outdoors
- be interested in nature and animals
- work in very cold or very hot weather conditions

***Activities for students interested in this pathway include:***

- 4-H swine, rabbits, goats, beef, dairy, horses, sheep, and poultry
- outdoor activities including camping, hiking, fishing, and hunting
  - participate in activities to control air or water pollution
    - 4-H gardening and 4-H food and nutrition
  - study plants in gardens, parks, or forests
  - read farm or environmental magazines
    - participate in recycling projects
    - study the habits of wildlife
    - care for animals
    - join FFA





## NATURAL RESOURCES AND AGRISCIENCE

**Natural Resources and Agriscience** careers are related to natural resources, agriculture, and the environment. Samples of careers in this pathway are listed below. To find out more about these careers, use Career Cruising [www.careercruising.com](http://www.careercruising.com) or the *Occupational Outlook Handbook* [www.bls.gov/oco/](http://www.bls.gov/oco/) or the *Occupational Information Network O\*NET* OnLine <http://online.onetcenter.org/>.

Agricultural Engineer  
Agricultural Journalist  
Agricultural Sales  
Agricultural Scientist  
Agriculture Teacher  
Animal Caretaker  
Animal Scientist  
Astronomer  
Biochemist  
Biological Scientist  
Botanist  
Cannery Worker  
Chemical Technician  
Conservation Officer  
Cooperative Extension Service Worker  
Dairy Herdsman  
Ecologist  
Environmental Public Relations  
Farm Equipment Mechanic  
Farm Supervisor  
Farm Worker  
Farmer & Farm Manager  
Field Inspector  
Fish and Game Warden  
Food Drier & Roaster  
Forester & Conservationist  
Forestry Technician

Gardener  
Geographer  
Geologist  
Geophysicist  
Grain & Feed Miller  
Groundskeeper  
Horse Trainer  
Horticultural Nursery Worker  
Hydroponics Technologist  
Landscape and Nursery Manager  
Landscape Architect  
Logging Worker  
Marine Biologist  
Meteorologist  
Miner  
Oceanographer  
Occupations in Hazardous Waste  
Industry  
Ornamental Horticulturist  
Pest Controller  
Physicist  
Soil Conservationist  
Sports/Commercial Turf Manager  
Tree Surgeon  
Water/Wastewater Plant Operator  
Weather Observer  
Zoologist

