

# Superior Central High School



## Course Descriptions

Updated April 2020

## **SUPERIOR CENTRAL GRADUATION REQUIREMENTS**

Graduation from Superior Central High School requires the successful completion of twenty-five credits. Superior Central grants credit on a semester basis for all courses.

### **English – 4 Credits**

- English 9 – 1.0 credit
- English 10 – 1.0 credit
- English 11 – 1.0 credit
- English 12 – 1.0 credit

### **Math – 4 Credits**

- Algebra I – 1.0 credit
- Algebra II – 1.0 credit
- Geometry in Construction – 2.0 credits (1.0 credit for math & 1.0 credit for Applied Arts)
- Senior Year Course – 1.0 credit

### **Science – 3 Credits**

- Biology – 1.0 credit
- Physical Science – 1.0 credit
- Chemistry, Physics, Anatomy, Advanced Science,  
Agriculture/Forestry, Natural Resources – 1.0 credit

### **Social Studies – 3 Credits**

- United States History – 1.0 credit
- World History – 1.0 credit
- Civics – 0.5 credit
- Economics – 0.5 credit

### **Physical Education – 0.5 Credits**

### **Health – 0.5 Credits**

### **World Language – 2 Credits\***

- Spanish I – 1.0 credit

\* Second World Language Credit can be fulfilled with a second year online Spanish course or a CTE course or an additional visual, performing, or applied arts credit.

### **Visual, Performing, and Applied Arts – 1 Credit**

### **Electives – 7 Credits**

### **Total Credits – 25**

**For information on the Michigan Merit Curriculum please click the link below:**

<https://www.michigan.gov/documents/mde/OES - Michigan Merit Curriculum - Final 659056 7.pdf>

## ENGLISH

### English 9

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
English 9	9	Year	1

This required high school course is a survey of short stories, poetry, drama, essays, and novels. Longer works include *Romeo and Juliet*, *To Kill a Mockingbird*, and various literature circle books. The focus of this fiction reading will be on using literary elements, such as characterization, theme, symbolism, etc. to help determine meaning. ELA 9 will also incorporate non-fiction reading, such as articles and essays, to help decipher techniques used to determine the author's purpose. Students will write a full-length literary analysis essay, a research-based argument essay, along with personal essay and reflective pieces. The focus of this writing will be on purpose, along with organizational skills such as thesis writing, developing body paragraphs, incorporating textual evidence and outside support, along with proper MLA citation.

### English 10

**(Prerequisite – English 9)**

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
English 10	10	Year	1

This required high school course includes a focus on rhetorical analysis and argumentation through a study of informative and literary texts. These reading and writing skills will be developed by engaging with a variety of nonfiction and literary texts, among them *Lord of the Flies*, *Julius Caesar* and *The Absolutely True Diary of a Part-Time Indian*. Students will be expected to complete a variety of argumentative, reflective, and research-based compositions. An emphasis will be placed on writing skills to help prepare students for future academic testing, such as the SAT and other college entrance exams.

### **English 11**

**(Prerequisite – English 10)**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
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English 11	11	Year	1
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This required high school course is a study of contemporary American literature. Throughout the semester, students will analyze texts such as *The Great Gatsby*, *The House on Mango Street*, *A Raisin in the Sun*, and *Ceremony* from a variety of perspectives and theories such as formalist, reader response, and historical. An emphasis will be placed on writing skills to help prepare students for future academic testing, such as and the SAT and other college entrance exams.

### **English 12**

**(Prerequisite – English 11)**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
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English 12	12	Year	1
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This is a required course consisting of a focus on effective reading and writing skills that will benefit students in college or the workplace. The reading focus is on modern classics, such as *Fahrenheit 451*, and contemporary memoirs or biographies, such as *Unbroken* and *The Glass Castle*. In addition, students read Shakespeare's comedy, *Twelfth Night*, and numerous short stories, including a study of the sub-genre of Southern Gothic fiction. The writing focus in the class is on research-based argument papers, similar to what they would write for college courses, although students will also get to write at least one creative piece, and several personal essays, such as a "This I Believe" essay, and a definition essay.

## MATH

### Algebra I

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
Algebra I	9	Year	1

This course covers the foundational topics of Algebra. These topics include solving multi-step equations and inequalities, proportions, systems of equations and inequalities, an exploration of linear and quadratic relationships with a focus on graphing and problem-solving, an introduction to functions and their applications and the rules of exponents.

### Algebra II

**(Prerequisite –Algebra I)**

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
Algebra II	10	Year	1

In this course, the basic concepts of Algebra 1 are enriched. Topics studied include graphing, analyzing and interpreting functions including linear, quadratic, exponential and logarithmic functions. Other topics include systems of linear equations and inequalities, solving rational and radical equations, arithmetic and geometric sequences, conic sections and trigonometry.

**Geometry in Construction** - 2 Credits (1 math credit, 1 applied arts credit)

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
Geometry in Construction	11	Year	2

Geometry in Construction is a two-hour course integrating both geometry and construction together into one class. In Geometry, the class will cover, but not be limited to, Algebra review, properties of planes, lines, angle vocabulary and skills, proofs, the coordinate plane, two-and three-dimensional figures, transformations, similarity, trigonometric functions and laws, surface areas, volumes, and measurements. These skills will be taught and learned using an online program and via face to face instruction. Typically, the 2<sup>nd</sup> hour of the class will be spent in the shop incorporating the geometrical skills learned in the class into a shop setting. Safety in the shop will be an ongoing process along with learning to use various hand tools, and larger machinery such as the planer, drum sander, band saw, drill press, Compound miter saw, joiner, and table saw. Students will also experience a virtual welding machine and use those skills on an actual welder.

### **Pre-Calculus**

**(Prerequisite – Algebra I, Algebra II, & Geometry)**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
Pre-Calculus	11 & 12	Year	1

This course covers trigonometric graphs, equations, identities, proofs and applications. It also includes the study of all functions (linear, rational, radical, quadratic, absolute value, exponential) and their transformations and solutions. Analytic geometry and limits and continuity are introduced as well.

### **Senior Math**

**(Prerequisite – Algebra I, Algebra II, & Geometry)**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
Senior Math (Math 12)	12	Year	1

Semester One will focus on practical applications of mathematics in the world as it pertains to health insurance, vehicle insurance, home/renters insurance, life insurance, credit scores, credit and debit cards, debt, livable wages, minimum wage, student loans, writing checks, reconciling a bank account, vehicle loans, mortgages, equity loans, individual retirement accounts, employer-managed retirement funds, Social Security, Medicare, overall financial stability and living within your means.

Semester Two will focus on computer applications that utilize mathematics to organize and display data (Excel), present data (PowerPoint) and manage business finances and perform Payroll operations (QuickBooks). Students will also learn about FICA, FUTA and SUTA taxes and what the State of Michigan and Federal Internal Revenue Service requirements are for all employees and employers. Semester Two will review basic Algebra and Geometry skills as students are approaching their math placement exams at their chosen colleges/universities.

## SCIENCE

### Biology

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
Biology	9	Year	1

Biology is the study of life which includes microscopic organisms, fungi, plants, and animals. In this course the student will be studying life, life processes, and the interactions among living things.

Topics of study will include scientific inquiry, interdependence of living organisms and the environment, organization of living organisms, the basic chemistry of life, genetics, evolution and biodiversity.

### Physical Science

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
Physical Science	10	Year	1

Physical Science is a course that concentrates on understanding the physical world. Matter and energy are themes throughout the entire year, as are scientific methods such as observation, experimentation, data collection, and drawing conclusions.

Topics of study include: scientific inquiry, motion of objects, forces and motion, energy and energy transfer, and basic chemical principles.

**Anatomy & Physiology**  
**(Prerequisite – Biology)**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
Anatomy & Physiology	10-12	Year	1

Anatomy and Physiology is a life science course in which the student learns about the systems of the body and how they work. This course prepares students for a college level anatomy course. Students interested in educating themselves about how the human body works or students interested in medical or health professions should take this course.

Topics covered will include cell structure/function, chemical components of the body, special senses, and systems of the body which consist of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular/circulatory, lymphatic respiratory, digestive, urinary, and reproductive systems. Basic physiological principles are covered with each unit.

**Chemistry**  
**(Prerequisite – Algebra 1 & Algebra II concurrent or prior)**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
Chemistry	10, 11, 12	Year	1

Chemistry allows the student will develop a background in basic chemistry and work toward developing problem-solving skills, theory building, and modeling. The use of particle models will help to describe matter and how energy influences it. Three themes of chemistry that assist in its understanding are: How do we view matter? How does it behave? What is the role of energy in the changes you observe?

Topics of study will include scientific inquiry, describing matter, energy and states of matter, describing substances, chemical reactions, the mole, stoichiometry, acids and bases, and the periodic table.

**Agriculture/Forestry**  
**(Prerequisite –Biology)**

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
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Agriculture/Forestry	10-12	Year	1
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Agriculture/Forestry is a yearlong high school class that blends agricultural and forestry issues, practices and technology. The nature of the subject matter requires that a good part of the student's time is spent outdoors applying the information presented in the classroom. When possible, we produce the product we are studying. Products produced each year; apple cider, butter, cheese, ice cream, maple syrup, and vegetables from the hoop-house.

Ever increasing advances in technology and scientific understanding of agriculture and forestry demands that these professionals are well educated, adaptive and ever mindful to trends within their industry. This class will be visited many of these professionals so they can learn firsthand how these issues impact their lives. When possible, the class will go out to the forest or field with these people to cruise and scale timber, collect and analyze soil samples, apply and test various planting techniques, etc.

This class can be taken a second year if the student wishes so each year the subjects studied will be slightly different. The list below is broken down into those subjects covered each year and those subjects the are taught on alternating years.

*Each year*

Soil quality and conservation  
The Apple Industry  
The Dairy Industry  
The Maple Syrup Industry  
Invasive Species  
Azimuth and Pacing  
Scaling lumber  
Genetically modified organisms  
Industrialized agriculture  
Cutting techniques and evaluation  
Germination  
Seed-saving

*Alternating years*

The Christmas tree industry  
Engineered wood products  
Logging technology  
Food Preservation  
Fiber production and utilization  
Ruminant digestion  
Pollination techniques  
Land Survey  
Biofuels  
Urban farming  
Foraging

**Natural Resources/Water Craft Design** – 2 credits (1 science credit, 1 applied arts credit)  
**(Prerequisite – Grades 11 & 12, recommendation from instructor)**

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
Natural Resources/Water Craft Design	11, 12	Year	1

This is a two credit class that is two class periods long running back to back. One credit will be for Science and the other will be for Fine Arts and both classes must be taken if a student signs up for this course.

The science subject matter will focus on our natural resources; how we use them, how we maintain and monitor their quality and how we ensure their sustainability for future generations. The study of these resources will be leaning heavily towards analysis, application and evaluation. During the 2<sup>nd</sup> semester of school, each student will be required to identify a natural resource issue that exists at school or within the community, design a project to remedy the issue, carrying out the project and visually document the progression of the project, then present their work to the class upon completion. In the past this has involved contacting local natural resource organizations for information, services, and/or financial assistance for the purchase of materials.

This type of class will require considerable effort and discipline on the student's part and will also require us to be outside often. During the warmer months we may spend both class periods studying only science or field sketching outside and during the colder months we may spend both class periods only working on boats in-doors.

The art subject matter will focus on the design and evolution of traditional watercraft and field sketching. We will look at traditional watercraft design from many cultures, what materials were used, why they were designed in a particular manner and how modern materials eventually effected the original designs. All students will participate in the construction of solo 13 foot plywood and fiberglass pirogues (flat bottomed canoes). Working in teams the students will construct, from pre-cut kits, a pirogue for **each** student in the class.

In the spring of the year everybody will be taking a day –long trip to a nearby lake with their pirogue. The first day (this will be a Friday) is mandatory and each student will receive a grade on the quality of their participation in the safe use of their boats, water quality analysis, invasive species identification, littoral land use recommendations, field sketching, etc. If for some reason a student is unable to attend this outing, a comprehensive research paper of a subject of my choice can take the place of this grade. Optional to the student is the opportunity to camp out with the class until Sunday morning. This is not mandatory and choosing not to go will not affect the student's grade. Extra- curricular eligibility and parental consent would be necessary to go on this outing.

Upon completion of this course the students may keep the pirogue they constructed. However, due to the large monetary and time commitment from supporters, the school, and staff, any student that does not pass **both** classes in **both** semesters of this course will not be able to keep a boat, paddle or life jacket.

**Subject matter covered:**

<i>Natural Resources</i>	<i>Art</i>
Water quality	Scientific field sketching
Global water use	Traditional watercraft design and construction
Renewable and nonrenewable resources	Utilitarian Art
Biomes and wildlife corridors	Pirogue construction
Forest soils and succession	Paddle construction
Adaptations and endangered species	Seat construction
Independent Conservation and Community Service Projects (culmination of both classes)	

**Advanced Placement Chemistry (Offered in even numbered years; Fall of 2020, 2022, etc...)**  
**(Prerequisite – Chemistry Algebra I& Algebra II)**

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
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Advanced Placement Chemistry	11-12	Year	1
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Advanced Placement Chemistry is designed to be equivalent to a first year college chemistry course. It follows the curriculum set forth by the College Board and includes units such as: atomic structure and properties, molecular and ionic compound structures and properties, intermolecular forces and properties, chemical reactions, kinetics, thermodynamics, equilibrium, acids & bases, and applications of thermodynamics. Lab work focuses on encouraging students to design and plan labs, collect data, analyze, create models, apply math and develop scientific arguments. Students that earn a qualifying score on the AP Chemistry exam may be allowed to take second year chemistry courses during their first year at college or university (which is up to 5-10 credits hours earned with qualifying scores).

**Physics (Offered in odd numbered years; Fall of 2021, 2023, etc...)**  
**(Prerequisite –Algebra I and Algebra II)**

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
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Physics*	10-12	Year	1
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Physics prepares the student for college level physics. The student will develop a background in basic physics and work toward developing problem-solving skills, theory building, and modeling. Mathematical principles will be used to support almost all aspects of physics covered in this course.

*\*This course can be taken as a math or a science credit.*

Topics of study will include forces and motion, waves and light, and electricity and magnetism.

## **SOCIAL STUDIES**

### **United States History/Geography**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
United States History/Geography	9	Year	1

This required course focuses on the time period from Reconstruction to modern-day America. Students will learn the essential characteristics and big ideas of each time period, along with numerous specific people and terms. The focus will be on chronology, trends, and making connections across time periods. Units include the Gilded Age, Imperialism, the Progressive Era, World War I, the Roaring Twenties, the Great Depression, World War II, The Cold War, Civil Rights Movement and the Vietnam War. Students will read numerous primary sources, interpret political cartoons and photographs, read charts, graphs and infographics, all in the pursuit of gaining a basic understanding of this country's history.

### **World History/Geography**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
World History/Geography	10	Year	1

This required course covers all of the history of the world, from pre-history to modern day issues, though the focus is on periods 4-7 using the College, Career and Civic Life (C3) Framework standards, as adopted by the State of Michigan. This class focuses on the rise and fall of various civilizations from each area of the world, discussing the social, economic, political and religious structures that guide each civilization and how they are similar/different from each other. Geography is a large component of this course and will constitute about 25-35% of the content and grading. Patterns across time and geographic areas will be a main focus of class discussion, using primary sources, maps, graphs, etc. to support ideas and answers.

### **Civics**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
Civics	11	Semester	.5

This course is designed to better prepare students to become informed responsible citizens. Students will learn about the structure and function of government, individual rights, and how they can participate as citizens. The curriculum will be aligned with the Michigan High School Content Expectations

## **Economics**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
Economics	11	Semester	.5

This course is designed to introduce students to concepts of microeconomics and macroeconomics. Students will study supply and demand, business structures, market systems, personal finance, and the global economy. The curriculum will be aligned with the Michigan High School Content Expectations

## **Advanced Placement United States History (Offered in odd numbered years; Fall of 2021, 2023, etc...)**

<b><u>Course Title</u></b>	<b><u>Grade Taken</u></b>	<b><u>Length of Course</u></b>	<b><u>Number of Credits</u></b>
Advance Placement U.S. History	10-12	Year	1

This course is an elective course taken during a student's 10th, 11th, or 12th grade year. It is offered on an every-other year rotation, so students should plan ahead if they choose to take it. This class is an AP-designated class, meaning it will follow the curriculum and requirements designated by the College Board. APUSH is a very rigorous class that covers all of U.S. History, from the founding of Jamestown to the Obama Presidency. The goal of this course is for students to thoroughly comprehend U.S. History, and to develop reading and writing skills at a level that will earn them a passing score on the end-of-year test that is given by College Board each year in May. Students who earn a score deemed passing by their college of choice will be given college credits for the class without having to pay the associated tuition costs.

## PHYSICAL EDUCATION/HEALTH

### Physical Education

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
Physical Education	9	Semester	.5

This course emphasizes the practical application of knowledge to healthful daily living. This course is designed to introduce students to the knowledge and skills needed to practice and maintain healthy behaviors and lifestyles. Physical Education is an introductory course to explore personal fitness, and exposes the individual to lifetime activity. Units of instruction will vary from one to three weeks affected by the weather, time and gym space available due to scheduling conflicts. Units of instruction will vary and are not limited to the following activities, or inclusive of all of the following.

Course Objective: Upon completion of this course, students will have a better understanding of the following:

Team Sports: Floor Hockey, basketball, football, volleyball, softball, soccer, ultimate Frisbee,

and team handball.

Individual Sports: badminton, pickle ball, Frisbee, weight training.

### Health

<u>Course Title</u>	<u>Grade Taken</u>	<u>Length of Course</u>	<u>Number of Credits</u>
Health	9	One-Semester	.5

This course emphasizes the practical application of knowledge to healthful daily living. This course is designed to introduce students to the knowledge and skills needed to practice and maintain healthy behaviors and lifestyles. Wise decision-making skills are developed as students explore health related areas such as mental health, nutrition, physical fitness, safety, substance abuse, HIV and STI's. Students are encouraged to take personal responsibility in making healthy decisions regarding their physical and emotional wellbeing. Personal assessments, problem solving, and many hands-on activities reinforce the learned material.

**Weightlifting**  
**(Prerequisite – Physical Education)**

Course Title	Grade Taken	Length of Course	Number of Credits
Weightlifting	10-12	Year	1

This course emphasizes the practical application of knowledge to healthful daily living. This course is designed to introduce students to the knowledge and skills needed to practice and maintain healthy behaviors and lifestyles. Advanced lifetime fitness and Weightlifting is a course designed to expand the base knowledge acquired in lifetime fitness and sport and further develop the individual's ability by expansion of the skills, strategies, and concepts associated with higher performance in a sport or lifetime activity.

Course Objectives: Upon completion of this course, students will have a better understanding of the following:

- Understand the components of physical fitness and how they relate to overall physical wellness.
- Participate in Fitnessgram assessments that measure the components of physical fitness.
- Design a Fitness Plan that is based upon the F.I.T.T. Principles and personal fitness levels.
- Understand the concept of total wellness and how weight training contributes to this.
- Demonstrate the basic fundamentals of weight training such as form, technique, spotting, breathing, and safety.
- Understand and demonstrate various training methods such as low repetition for strength, high repetition for endurance and toning, pyramid strength building and circuit training.
- Identify major muscle groups and give examples of specific lifts for those muscles.
- Demonstrate proper warm-up and cool-down procedures specific to weight training.
- Demonstrate correct mechanical and physiological principles on all lifts.
- Consistently demonstrate correct and safe spotting techniques.

## WORLD LANGUAGE

### Spanish I

Course Title	Grade Taken	Length of Course	Number of Credits
Spanish I	9	Year	1

This is an introductory course to the Spanish language and will include memorization of vocabulary words, verb conjugation in the present tense, regular verbs, irregular verbs, stem-changing verbs and several cultural lessons mixed throughout the year. Students will be expected to speak, read, write, listen to and understand some basic Spanish phrases and sentences.

**2<sup>nd</sup> World Language credit is available online**

## CAREER TECHNICAL EDUCATION

**Construction Technology** (Credit can be taken as a 4<sup>th</sup> year math or applied art)

Course Title	Grade Taken	Length of Course	Number of Credits
Construction Technology	10-12	Year	1

Construction Technology is a comprehensive construction program that covers most common aspects and techniques used in the construction trades. Students will learn general safety practices in the shop and the proper use of hand tools, power tools and power equipment. They will learn to work together as a team to design and build a project and design a project involving a CNC router. All students will also experience using the Miller Virtual Welder and then use that knowledge to either MIG, TIG, or Stick weld in the shop. They will participate in a variety of hands-on projects in both the shop, and in the community preparing them for either employment or continued education in the occupations of carpentry, electrical wiring, plumbing and/or masonry.

## ELECTIVES

**Art** (Credit can be taken as an elective credit or applied art credit)

Course Title	Grade Taken	Length of Course	Number of Credits
Art	9-12	Year	1

This class begins as an introductory art course designed for high school students that have an interest in art and wish to become better artists. You are not expected to know how to draw to take this class. You will learn how to draw and if you already are a good artist this class will make you a better one. Your willingness to get involved and do your best will determine your grade as well as how much you enjoy this class.

Students will learn how to manipulate the design elements and principles of art, as well as use a variety of media to communicate ideas creatively. Most projects will be done in black and white (this includes shades of grey) during this course using a variety of media such as pencil, charcoal and India ink, but we will occasionally use tempera and watercolor paints as well. The production of art extends to every culture and time period of human existence on Earth and we will often incorporate the history, mythology and techniques of some of these cultures into our studies.

A student can take this class for more than one year and advanced students will work with first year students for approximately half of the school year and pursue independent projects for the rest.

**Band** (Credit can be taken as an elective or performing art credit)

**(Prerequisite – Because the ensemble is focused on performing more challenging music, all students should have prior experience reading music and playing in a concert band setting.)**

Course Title	Grade Taken	Length of Course	Number of Credits
Band	9-12	Year	1

Concert Band is a large ensemble, performance-based course with an emphasis on continuation of musicianship. Activities include playing at community concerts, participating in pep band throughout various sports seasons, and performing at Band and Orchestra Festival. Instrumentation includes wind and percussion instruments.

**Drawing and Design** (Credit can be taken as an elective credit or applied art credit)

Course Title	Grade Taken	Length of Course	Number of Credits
Drawing and Design	9-12	Year	1

The first step in producing a product or constructing a building is creating a set of plans. This class will teach you the principles, rules and skills necessary to create the accurate drawings necessary to build typical mechanical parts and homes.

**First year students - first semester:**

*Lettering and measuring* - To most students these are the least enjoyable activities of this class. Unfortunately they are vitally important and you will continue practicing both until you are good at both.

*Basic drawing skills* - Construct a formatted paper with a given geometric shape in the center.

*Mechanical Drawing* - Drawing common mechanical parts. These drawings begin with traditional tools (paper, pencil, T-square, etc.) and as you gain proficiency you will be advanced to the computer drawing and design program *AutoCadd*.

**First year students - second semester:**

*Architectural Design and Drawing* - Each student will design a house within a given set of parameters then complete the drawings necessary to build that house. Your first house will be drawn using traditional tools, your second will be on *AutoCadd*.

**Second Year Advanced Students**

A few warm-up drawings to get the rust off then choose a direction. Architectural or Mechanical:

If Architectural design and create the drawings necessary to build the next scale model.

If Mechanical design and create the drawings necessary to produce a marketable product.

**Industrial Technology** (Required course for Freshmen, credit fulfills state required applied art credit)

Course Title	Grade Taken	Length of Course	Number of Credits
Industrial Technology	9	Year	1

Students will learn to work with 3dprinters, a CNC laser machine, a CNC router machine, and the virtual welder. They will use different software to design projects that can be 3d printed or cut/carved out on those machines. They will also learn about basic electricity and ultimately design a project that involves electricity, LED's, the CNC router, the laser printer and the 3d printer all in one project. During the course students will use a welder and do some very basic welding to make a small project. There will be a lot of hands on work in the shop so student will be required to learn about safety in the shop and how to properly use the tools and some machines in the shop.

### **Peer to Peer**

Course Title	Grade Taken	Length of Course	Number of Credits
Peer to Peer	10-12	Year	1

Peer to Peer provides a student in the general curriculum to interact with students with special needs students and to earn high school credit while doing so. It increases opportunities for students with special needs to access general education settings and curriculum. Peers model typical academic and social behavior in educational environments throughout the school day and provide support for students with special needs to promote independence and socialization, as they earn high school credit. Peer to Peer support programs and inclusion of students with special needs benefits all students and teaches lifelong lessons.

### **Senior Seminar**

Course Title	Grade Taken	Length of Course	Number of Credits
Senior Seminar	12	Year	1

Senior Seminar is a class geared to help seniors' transition and become knowledgeable on post-secondary options and life beyond high school. Students will explore college opportunities, building trades, military options, and careers. Degree exploration, college and scholarship applications will be explored. Students will learn employment skills to include resume writing, completing job applications, interviewing, and job searching in the world of technology. Personal finance with budgeting and living independently will also be covered. Guest speakers will give presentations on careers and how to be successful in various careers.

**Web Design, Coding and 3D Modeling** (Credit can be taken as an elective credit or applied art credit)

Course Title	Grade Taken	Length of Course	Number of Credits
Web Design, Coding and 3D Modeling	10-12	Year	1

In this class students will learn some basic coding skills, learn how to use design software such as SolidWorks, CorelDraw, and V-Carve and print out their designs on one of the 3d printers, or laser printer, or CNC router. They will also have the opportunity to get their basic certification in SolidWorks. In all of these programs students will be learning more about the math and geometry skills and knowledge needed to design using these programs. They will learn the process of taking an idea, turning it into a design, and converting their design into a file type necessary to run on the 3d printers, CNC laser, or CNC router.