

GILMANTON HIGH SCHOOL

COURSE DESCRIPTIONS 2017-2018

ART DEPARTMENT

½ Credit in Art (choice) Required for Graduation

ART 1 Semester, 1/2 credit

- Elective

The classes offered in Art provide students with a variety of experiences in many artistic techniques and media. Using the elements of art and the principles of design, students will develop creative problem solving skills.

Students may select one area of study each semester for ½ credit. For those with little or no experience, it is suggested to begin with Drawing I. In any given area, level I must be completed (or competency demonstrated) before a student enrolls in level II.

American Indian Art I

This course will explore and study the culture, history, and arts of North American Indian tribes. Project studies may include mandelas and medicine wheels, sand painting, weaving, beadwork, sculpture basketry, dream catchers, jewelry, and pottery.

American Indian Art II

This course will expand upon the study of the culture, history, and arts of North American Indian tribes. Project studies will be extended from American Indian Art I and will include an independent, in depth, study of the student's choice.

Ceramics I

Basic hand-built techniques are used to create a wide variety of functional and nonfunctional pottery. Various decorating and glazing techniques are also developed.

Ceramics II

Advanced hand building and basic wheel throwing techniques are used to continue the study of ceramic design.

Commercial Design

Art-related careers are explored through the study of commercial art, cartooning, lettering, illustration, fashion and/or automotive design.

Drawing I

Basic drawing techniques and the student's individual styles are developed through the use of lead, pen and ink, scratch board and assorted colored media.

Drawing II

An advanced study of colored and black & white media which continues skill and style development. Media explored includes charcoal, pastel, colored ink, prismacolor pencil, colored scratch board, mixed media, and/or computer graphics.

Fibers

On and off loom weaving techniques, textile surface design, stitchery, and/or soft sculpture are explored through the use of natural and man-made fibers.

Graphics I

A printmaking class which includes basic stencil, block printing, and solar printing processes.

Graphics II

Advanced block printing techniques and the basic silk-screening process, as well as computer graphics will be used to reproduce the student's designs on assorted surfaces.

Painting I

Involves the development of color theory and assorted brush application techniques as well as the exploration of different painting styles. Media used is acrylic and fabric paints.

Painting II

A continued study of painting styles and techniques using watercolor, acrylic, fabric paint, glass stain, and computer graphics.

Sculpture I

Three-dimensional art is explored through the use of additive and subtractive sculpting techniques. Materials used may include wood, metal, plaster, wire, paper, synthetic jewelry materials, and found objects.

Sculpture II

Advanced sculpting techniques are to construct larger, more complicated pieces, which include the student's choice of materials, soft sculpture, and/or inflatable sculpture.

Independent Art

Prerequisite: junior or senior with 3 or more semesters of high school art experience. Students design their own projects from a list of media and ideas supplied by the instructor. Can be repeated with permission by instructor.

Advanced Placement Art

See the Guidance Counselor for more information on Advanced Placement Courses.

BUSINESS EDUCATION DEPARTMENT

½ Credit in Personal Finance Required for Graduation

PERSONAL FINANCE 1 Semester, 1/2 credit

- Required for graduation

Students need financial knowledge to ensure they make the best financial decisions. Whether it is completing transactions for daily use or analyzing investments for their future, students must understand how to use resources to develop economic growth. Topics will include banking activities, investments, budgeting, credit, taxes, consumer rights, and insurance.

INTRODUCTION TO BUSINESS 1 Semester, 1/2 credit

- Elective
- Open to grades 9-12.

To be a productive citizen in today's society, students must understand the role and function of business in the world's economy. This introductory course will give students basic knowledge both FOR and ABOUT business. They will learn about the main facets of business and will gain a solid foundation for further business courses. Through a variety of activities, students will become better prepared to deal with and become part of the business world. Topics include: free enterprise system, international business, entrepreneurship, management, marketing, and business etiquette.

BUSINESS AND PERSONAL LAW 1 Semester, 1/2 credit

- Elective
- Open to grades 10-12.

This course will explore our legal system and how it relates to business, civil, and criminal law. Students will learn how the law affects their lives on a more personal basis. Students will study real-life court cases to help understand an individual's rights and remedies. Areas of study include: criminal law, torts, the court system, and contracts. Students will be involved in a mock trial and will participate in a field trip to a circuit court.

MICROSOFT OFFICE 1 Semester, 1/2 credit

- Elective
- Pre-requisite: Computer Applications
- Open to grades 10-12.

Microsoft Office will build upon skills learned in middle school and is designed for students who have an interest in the business technology field.

The goal of this course is for students to apply computer skills and integrate the use of the Microsoft Office Suite into academic and business environments. Students will participate in various common tasks that use word processing, spreadsheet, presentation, desktop publishing, and database software.

MULTIMEDIA 1 Semester, 1/2 credit

- Elective
- Pre-requisite: Computer Applications
- Open to grades 10-12.

Multimedia is the use of several different methods (media) to convey information (text, audio, graphics, and video). Students in Multimedia class will present information in various digital formats: Website creation (Google Sites); Audio editing (Audacity); Video production (Windows Movie Maker / Video Pad); Digital photography; Graphic editing (Adobe Photoshop).

DESKTOP PUBLISHING I & II 1 Semester, 1/2 credit

- Elective
- Open to grades 10-12.

Desktop Publishing will acquaint students with graphic techniques, principles of page design, and desktop publishing applications. Students will use In-Design to create a variety of documents. Scanning software and digital cameras will be used. Students will also be responsible, under the supervision of a student editor and co-editor, for producing the high school yearbook.

ACCOUNTING I Full Year, 1 credit

- Elective

- Open to all 10-12th grade students.

This elective course will provide an understanding of the basic elements and concepts of double-entry accounting systems, including the following: the accounting equation, the accounting cycle, entering transactions in journals, posting to ledgers, end-of-period statements and reports, payroll systems, banking activities, taxes, uncollectible accounts, depreciation, calculating payroll, preparation of balance sheets, income statements, journal entries, and income tax forms.

BUSINESS MATH Full Year, 1 credit

Business Math is a full year course in which students learn to use mathematics effectively as a tool in their personal and business lives. The math concepts that will be learned in this course will be helpful in students' future careers and will be practical in life, as well. This course may be used to meet the mathematics requirements for graduation. Business Math is open to all seniors and to juniors with Math teacher approval/recommendation.

FOREIGN LANGUAGE DEPARTMENT

Electives

SPANISH 1 Full Year, 1 credit

- Elective
- Distance Learning Course

In this class, students will build a foundation in language skills, including conversation, comprehension, cultural understanding, grammar, reading, and writing. During the year, Spanish I students will participate in drill activities, paired conversations, dialogues, and role playing, as well as actively participate in conversations and write about their daily lives, personal interests, preferences, and feelings. Writing journal entries in Spanish will be an on-going activity. Through reading and writing, students will increase their vocabulary and grammar skills, and their understanding of other cultures. Students will also participate in a variety of creative activities and projects utilizing the Spanish language.

SPANISH 2 Full Year, 1 credit

- Elective
- Distance Learning Course
- Prerequisite: "C" average in Spanish I is recommended

In this language-intensive class, students will review and expand on the skills learned in Spanish I. During the year, Spanish II students will participate in drill activities, paired conversations, dialogues, and role-playing, as well as actively participate in conversations and write about a variety of themes. Writing journal entries in Spanish will be an on-going activity. Through reading and writing, students will increase their vocabulary and grammar skills, and their understanding of other cultures. Students will also participate in a variety of creative activities and projects utilizing the Spanish language.

ADVANCED PLACEMENT SPANISH – See the Guidance Counselor for more information on Advanced Placement Courses.

HEALTH EDUCATION DEPARTMENT

½ Credit in Health Required for Graduation is now awarded in 7th & 8th grade

HEALTH 1 Semester, 1/2 credit

- Not currently offered

A very comprehensive health class consisting of various aspects necessary for healthful emotional, social, and personal development. Topics covered are mental/emotional health, personal health, community health, environmental and consumer health, prevention and control of disease (including HIV education), nutrition, accident and safety prevention, and substance use and abuse.

ENGLISH/LANGUAGE ARTS DEPARTMENT

4.0 Credits in English Required for Graduation

Note: Honors English 11 and AP English are in the 4-year college track. English 11 and 12 are in the career and/or 2-year college track. See the guidance counselor if you are not sure which track to register for.

ENGLISH 9 Full Year, 1 credit

- Required - grade 9

Students will build on their knowledge of the Six Traits of Writing and Writing Process to create personal, creative, and academic pieces of writing, as well as explore oral and electronic communication through speeches, podcasts, and/or web pages. Plagiarism and how to avoid it, in addition to effective study skills, researching skills, note-taking skills, and reading strategies, will be developed. Various genres of literature, including nonfiction, fiction, short stories, drama, and poetry, and elements of literature will be introduced and defined. Possible works include *Of Mice and Men* (Steinbeck), *The Boy Who Harnessed the Wind* (Kamkwamba), *Julius Caesar* (Shakespeare), and *Animal Farm* (Orwell).

ENGLISH 10 Full year, 1 credit

- Required - grade 10

Students will build on their knowledge of the Six Traits of Writing and Writing Process and learn about the alternate aims and audiences of written compositions by writing persuasive, critical, and creative multi-paragraph essays and compositions. Through the study of various genres of World Literature, students will improve their reading rate and comprehension and develop the skills to determine the author's intent and theme and to recognize the techniques used by the author to deliver his or her message. Various genres of literature, including nonfiction, fiction, short stories, drama, and poetry, and elements of literature will be expanded on. Possible works include *Night* (Wiesel), *Maus I* and *Maus II* (Spiegelman), *The Good Earth* (Buck), *Silas Marner* (Eliot), and *Twelfth Night* (Shakespeare).

ENGLISH 11 Full year, 1 credit

- Career and/or 2-year college track
- Required if not in Honors English 11

Students will improve language arts and critical-thinking skills, focusing on various nonfiction genres of literature, such as essay, biography, memoir, and autobiography. We will determine the underlying assumptions and values within the selected works and also examine the structure, techniques, and

intentions of the genre being studied. Oral discussion is an integral part of these genre-oriented courses, and written compositions are often required. Possible works include *Incidents in the Life of a Slave Girl* (Brent), *The Sea Around Us* (Carson), *With Courage and Cloth: Winning the Fight for a Woman's Right to Vote* (Bausum), and *Into Thin Air: A Personal Account of the Mount Everest Disaster* (Krakauer). For composition, the focus will be on students' writing skills and developing their ability to compose different types of papers for a range of purposes and audiences. These courses enable students to explore and practice descriptive, narrative, persuasive, or expository styles as they write paragraphs, essays, letters, applications, formal documented papers, or technical reports. Although composition courses may present some opportunities for creative writing, their focus usually remains on nonfiction, scholarly, or formal writing.

HONORS ENGLISH 11 Full year, 1 credit, Honors

- Must have had “C” or better English 9 and English 10, or teacher consent
- 4-year college track
- Required if not in English 11

The first semester of this class will be spent learning the necessary skills and procedures for writing a research paper. We will explore types of primary and secondary sources and methods of research, and develop critical thinking skills, organizational skills, and persuasive writing skills and strategies to produce at least three well-written and organized research papers. During the second semester, American Literature will focus upon commonly known American authors and their works. Possible works include *Black Boy* (Wright), *The Great Gatsby* (Fitzgerald), *The Adventures of Huckleberry Finn* (Twain), and *Their Eyes Were Watching God* (Hurston). Students will improve their critical-thinking skills as they determine the underlying assumptions and values within the selected works and as they understand how the literature reflects the society of the time. Oral discussion is an integral part of literature courses, and written compositions are often required.

ENGLISH 12 Full year, 1 credit

- Required if not in AP English
- Open to grade 12

During semester 1, students will learn communication skills—reading, writing, listening, speaking—concentrating on “real-world” applications. These courses usually emphasize the practical application of communication as a business tool, using technical reports and manuals, business letters, resumes, and applications as examples. It will also build upon previous writing skills to reinforce the logical and critical-thinking skills that accompany good writing, and it will introduce students to public speaking. Word choice, usage, and writing mechanics will be emphasized, providing continued and advanced instruction in writing for a variety of purposes and audiences. During semester 2, students' language arts and critical-thinking skills will be improved upon, focusing on the literature written during or reflecting the 20th Century. Students will determine the underlying assumptions and values within the selected works, reflect upon the influence of societal events and social attitudes, and compare the points of view of various authors. Oral discussion is an integral part of literature courses, and written compositions are often required. Possible works include *The Old Man and the Sea* (Hemingway), *The Grapes of Wrath* (Steinbeck), *Krik? Krak!* (Danticat), and *The Absolutely True Diary of a Part Time Indian* (Alexie).

AP ENGLISH Full year, 1 credit, Honors

- Open to grade 12
- Must have had “C” or better in Honors English 11, or teacher's consent
- Completion of a Summer Reading Assignment prior to the first day of school

Following the College Board's suggested curriculum designed to parallel college-level English courses, AP English Literature and Composition courses enable students to develop critical standards for evaluating literature. Students study the language, character, action, and theme in works of recognized literary merit; enrich their understanding of connotation, metaphor, irony, syntax, and tone; and write compositions of their own (including literary analysis, exposition, argument, narrative, and creative writing). Possible works include *How to Read Literature Like a Professor* (Foster), *The Odyssey* (Homer), *Things Fall Apart* (Achebe), *Pride and Prejudice* (Austen), *The Awakening* (Chopin), *A Doll's House* (Ibsen), *Hamlet* (Shakespeare), and *Ethan Frome* (Wharton).

MATHEMATICS DEPARTMENT

3 Credits in Mathematics Required for Graduation
(Algebra I, Geometry, & Algebra II)

ALGEBRA I Full year, 1 credit

- Required

Students work with basic operations of real numbers, solving linear equations and inequalities, functions, polynomials, exponents, quadratic relationships, and statistics. This class builds skills in problem solving, critical thinking, connecting topics, and communicating. Graphs, tables, and symbolic reasoning are used to solve and understand all algebraic concepts.

GEOMETRY Full year, 1 credit

- Required
- Prerequisite: Algebra I

This course covers plane and solid geometry. Study logic, proofs, triangles, polygons, circles, similarity, congruence, and probability. Working with perimeter, area, surface area and volume of solids, and working with coordinate geometry and transformations. Applications of algebraic concepts will be integrated with emphasis on critical thinking and communicating.

ALGEBRA II Full year, 1 credit

- Required (*Business Math can be taken as an alternative with special permission by the Math Department)
- Prerequisite: Algebra I and Geometry
 - Note: Can be taken concurrently with Geometry with special permission by the Math Department.

This course covers several families of functions (linear, quadratic, cubic, exponential, absolute value, hyperbola, and square root) - including graphing. It also includes polynomials, logarithms, exponential functions, trigonometry, statistics, and probability.

ADVANCED MATH Full year, 1 credit, Honors

- Elective
- Prerequisite: Algebra I, II, and Geometry with C- or higher grade average in all three classes; or special permission by the Math Department
- Open to grades 11 & 12

An elective class recommended for students planning on attending college and many technical college programs. Students work with advanced algebra, applications of trigonometry, functions and inverses,

sequences, and concepts of probability. When time permits, a study of elementary calculus topics such as derivatives, rates of change, and integrals.

Advanced Placement Calculus

Advanced Placement Statistics – See the Guidance Counselor for more information on Advanced Placement Courses.

MISCELLANEOUS COURSES

Electives

TUTORING/TEACHER'S ASSISTANT 1 Semester, 1/2 credit

- Elective
- Open to grades 11 - 12

The numbers allowed into this course will be based on need of the high school and elementary staff. The student works closely with a teacher and tutors high school, middle school, or elementary children in a variety of areas. Students must have the approval of the guidance counselor and principal to take this course.

Students in the tutoring program "contract" for the grade they want to receive and must meet the requirements of the program to receive that grade.

WORK EXPERIENCE 1 Semester, 1/2 credit, 2.0 credits maximum

- Elective
- Open to grades 11 - 12

Work Experience can be taken as a quarter, semester, or full year. Students must have a job and approval of the principal and guidance counselor to assure student will meet required graduation credits. The student's employer must be willing to enter into an agreement with the school to be a participating work site. Students will take the required academic classes at the time they are offered – no independent study is permitted for required classes. No schedule adjustments for work study time. No more than 2 credits per high school career can be earned.

Students who choose to take Work Experience need to meet all of the criteria spelled out by the instructor. A grade is given according to the criteria and the grade counts toward the student's grade point average (up to ½ credit per semester, 1 credit per year).

MUSIC DEPARTMENT

Electives

BAND Full year, 1 credit

- Elective

Students must be able to play the Bb concert scale in one octave from memory. Arrangements must be made to obtain an instrument to perform with. Band is a performance organization, which learns about and rehearses music from all music periods, from the Middle Ages to contemporary rock, pop, country, etc. The band performs at several concerts, and provides music for sporting events. The band is required to perform at the graduation ceremony.

CHOIR Full year, 1/2 credit

- Elective

Students will audition and must be able to correctly match pitches in a one-octave scale in their range. Choir is a performance organization, which rehearses a wide variety of music from various time periods. The choir performs at two to three concerts each year. Students will be required to perform at the graduation ceremony.

ADVANCED PLACEMENT MUSIC – See the Guidance Counselor for more information on Advanced Placement Courses.

PHYSICAL EDUCATION DEPARTMENT

1½ Credits in Physical Education Required for Graduation
(Generally take in grades 9, 10, and 11)

LIFETIME PE 1 1 Semester, ½ credit

- Required for grades 9 – 10

The focus of this course is to reinforce and continue building the base of physical education and fitness for freshmen and sophomores. The course will include: 3 days of vigorous activity in the weight room/gym, and 2 days of work on anatomy, training principles, safety precautions, fitness testing, and other various activities which will be cardio intensive.

LIFETIME PE 2 1 Semester, ½ credit

- Required for grade 11
- Elective for grade 12

The focus of this course is to reinforce and continue to build the basis of physical education and fitness in our Gilmanton upper classmen. The course will be similar in structure to Lifetime PE 1 along with more emphasis on performance while using the latest strategies and techniques such as H.I.I.T. (High Intensity Interval training) principles.

INDEPENDENT PE 1 Semester, ½ credit

This course is for the student that has demonstrated proficiency and has excelled in Lifetime PE 1 and/or PE 2. Instructor approval is required before requesting this class.

SCIENCE DEPARTMENT

3.0 Credits in Science Required for Graduation
(Physical Science, Biology, plus 1.0 Credit Elective)

PHYSICAL SCIENCE Full Year, 1 credit

- Required for grade 9

This is an introductory course that covers various types of physical sciences for freshmen. Subjects covered include introductory chemistry and physics. Emphasis is placed on understanding the atom and atomic structure, defining the different types of matter, describing motion and energy, and understanding

machines. This course also concentrates on developing skills in critical thinking through the scientific method, skills in observations and basic laboratory procedures.

BIOLOGY Full Year, 1 credit

- Required for grade 10

Biology is the study of living things. Some of the areas studied in this course include: the basic characteristics of all living organisms; plant and animal systems; ecology; and genetics. Lab work, lecture, writing assignments and projects will be emphasized.

CHEMISTRY Full Year, 1 credit, Honors

- Elective
- Open to grades 11-12
- Recommended: Algebra II or currently enrolled
- Offered 2018-2019 (every other year opposite Physics)

Chemistry is the study of matter. Topics will include the composition of matter, the periodic table, naming chemical compounds, chemical reactions, gases, solutions, and organic chemistry. The class will consist primarily of lab work, lecture, and problem solving exercises. All students pursuing technical studies or college level studies in a science related field should take this course. This is an honors level course, more rigorous than other science electives.

PHYSICS Full Year, 1 credit, Honors

- Elective
- Prerequisite: minimum of B average* in Geometry and C average* in Algebra I
- Offered 2017-18 (every other year opposite Chemistry)

Physics is the study of the interaction between energy and matter. This course is intended to appeal to a wide range of students. This course will cover many of the major topics in physics including: mechanics, force, sound and light, and electricity and magnetism. Lab work, lecture, problem solving, and projects will be emphasized. Physics is a preparatory step for students who intend furthering studies in science and technology. All engineering and college science majors should take this course. This is an honors level course, more rigorous than other science electives.

* Exceptions to prerequisite upon approval by Science and Math instructors.

ANATOMY AND PHYSIOLOGY 1 semester, 1/2 credit

- Elective
- Open to 11th - 12th grade students
- Prerequisite: Biology

Anatomy is the study of the structure and function of the human body. The various systems of the body will be explored. This course is especially recommended for all those interested in health and physical education. **This course is more rigorous than some of the other science electives.**

BOTANY 1 Semester, 1/2 credit

- Prerequisite – 1st Semester Biology
- Elective
- Open to 11th - 12th grade students

Botany is the study of plants. This course will explore the physiology, taxonomy, and propagation of plants. We will also look at the economic importance of plants. Class will include lecture, lab work, greenhouse work, outdoor labs, and writing projects.

EARTH SCIENCE 1 Semester, 1/2 credit

- Elective
- Open to 9-12th grade students

This class will focus on the solid structure of the earth and the forces that create changes. Rocks, minerals, erosion, earthquakes and volcanoes will be some of the topics discussed. Environmental issues will also be explored. Projects, lecture and labs will be required.

ENVIRONMENTAL SCIENCE 1 Semester, 1/2 credit

- Elective
- Open to 11th - 12th grade students

Environmental Science is the study of the natural environment. Living and non-living aspects of nature will be explored as well as the interactions that occur between them. Topics include: water, air and soil quality; endangered species and natural resources. Environmental concerns globally, nationally and locally will be explored and discussed. Class will include lecture/discussions, labs (both indoor and outdoor) and research projects.

OCEANOGRAPHY, METEOROLOGY, AND ASTRONOMY 1 sem, 1/2 credit

- Elective
- Open to 10th – 12th grade students

This class will focus on the earth's oceans, the atmosphere and the field of astronomy. Topics discussed will include the ecosystems that are found in the oceans, weather patterns and climate, as well as our solar system and other objects found in space will be explored. Projects, lectures and labs will be required.

ZOOLOGY 1 semester, 1/2 credit

- Elective
- Open to all 11 -12th grade students
- Prerequisite: 1st Semester of Biology

Zoology is the study of the diversity of the animal kingdom. Specifically we will explore the different types (phyla) including sponges, cnidarians (jellyfish, etc.), mollusks (clams, octopus, etc.), worms, arthropods, reptiles, birds, fishes and mammals. Topics such as living environments, eating habits, anatomy and reproduction will be explored. Class will include lecture/discussion, lab (emphasis on dissections) and research projects.

ADVANCED PLACEMENT BIOLOGY

ADVANCED PLACEMENT CHEMISTRY

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE

ADVANCED PLACEMENT PHYSICS – See the Guidance Counselor for more information on Advance Placement Courses.

SOCIAL STUDIES DEPARTMENT

3.0 Credits in Social Studies Required for Graduation

U.S. HISTORY Full year, 1 credit

- Required for grade 9

This course covers the European arrival, settlement, Revolutionary War, Westward expansion, Civil War, and Reconstruction Era through modern times. The major themes covered are: the continuing development of the Constitution (court decisions and amendments), Progressive Era, Labor Movement, migration and settlement of the West, Industrial Revolution, World War I, The Great Depression, World War II, Cold War Era, Civil Rights Movement, and recent events. The students should develop an appreciation for the American people and their ability to cope with crisis, and by understanding the past be better able to cope with or avoid future crisis.

WORLD HISTORY Full year, 1 credit

- Required for grade 10

World History is a survey course with emphasis placed on the following areas: 1) ancient civilizations, specifically the Middle East, Greek, and Roman; 2) Eastern civilization, including Japan, China, and India; 3) European history involving age of enlightenment, exploration, revolution, and industrialization; 4) the modern changing world and the problems related to peaceful co-existence and the struggle for economic prosperity.

CIVICS 1 semester, 1/2 credit

- Required for grade 11

Civics deals primarily with the structure and the functions of the national and state governments of the United States. This class includes the study of the following: systems of government; the Constitution and its development; how political parties, interest groups, and the electoral process affect political life; the legislative branch; the executive branch; the judicial branch; and how the state legislative, executive and judicial branches of government work with and without the national system of government. Local government organization will also be covered. This understanding of the political process will enable the student to understand and work within the framework of the American democratic system of government.

WISCONSIN HISTORY 1 semester, 1/2 credit

- Elective
- Open to grades 11 and 12; grade 10 with permission from instructor

This course will cover the political, economic and social development of the State of Wisconsin.

CURRENT EVENTS 1 semester, 1/2 credit

- Elective
- Open to grades 11 – 12; grade 10 with permission from instructor

Study of current events and issues that have been in the news in the past 5 years. Major issues will be based on current world events. Students will be able to have choices in the topics of the curriculum in many parts of this course. Course will be very hands-on and high energy.

U.S. MILITARY HISTORY 1 semester, 1/2 credit

- Elective
- Open to grades 11-12; grade 10 with permission from instructor

Students will have an interactive survey of the different military conflicts that the United States has been involved in since 1776. This course will allow students to interact with history in a number of different ways. The course will begin with the Revolutionary War and end with the War in Iraq “Operation Iraqi Freedom”.

SOCIOLOGY 1 semester, 1/2 credit

- Open to grades 11 and 12; grade 10 with permission from instructor

Sociology is about people; how they act, react, and interact both in their everyday lives and under extraordinary circumstances. Sociology also explores the social contexts; groups, neighborhoods, cities, even whole societies, in which thoughts, feelings, and ideas are formed.

ADVANCED PLACEMENT ECONOMICS

ADVANCED PLACEMENT GEOGRAPHY OR HUMAN GEOGRAPHY

ADVANCED PLACEMENT GOVERNMENT & POLITICS

ADVANCED PLACEMENT HISTORY

ADVANCED PLACEMENT PSYCHOLOGY – See the Guidance Counselor for more information on Advance Placement Courses.

TECHNOLOGY EDUCATION DEPARTMENT

½ Credit (choice) Required for Graduation

AG TECH & CONSTRUCTION I/II 1 quarter-block, 1/2 credit

- Elective
- Open to grades 9 - 12

This course introduces an awareness and skills in the area of agriculture. Topics covered in this class include nutrient categories in digestive systems, energy sources, how cows make milk, mastitis, and cattle breeds. Plus, students get hands-on experience restoring farm equipment. Ag Tech Construction II is a continuation of the first year course.

BASIC CONSTRUCTION I/II 1 quarter-block, 1/2 credit

- Elective
- Open to grades 9-12

This course provides an opportunity for students to become familiar with carpentry tools. This course will cover measurement, basic construction and building individual projects. Students are required to purchase lumber to build an individual project. Basic Construction II is a continuation of the first year course, covering home construction topics. Students are required to purchase lumber to build an individual project.

BUILDING CONSTRUCTION I/II 1 quarter-block, 1/2 credit

- Elective
- Open to grades 9 - 12

This course provides hands-on opportunities building framed walls and building projects in the community. Building Construction II is a continuation of the first year course.

COMMUNICATION SYSTEMS I 1 semester, 1/2 credit

- Elective
- Open to grades 9-12

Communication Systems is a course that is designed to give students a clear overview of communication techniques and devices important to technology. Students rotate through stations which include: photography, power point software, a radio station show, computer aided design, digital manipulation of pictures on a computer, screen printing and an introduction to creating web pages.

COMMUNICATION SYSTEMS II 1 semester, 1/2 credit

- Elective
- Prerequisite - Communication Systems I

Communications II extends activities in digital manipulation of pictures. The course also includes creating web pages, digital video production, and extends exercises in photography.

COMPUTER-AIDED DRAFTING & DESIGN (CAD I) 1 semester, 1/2 credit

- Elective
- Open to grades 9 - 12

This course is designed to expose students to the fundamentals of mechanical and architectural drafting using manual and computer-aided techniques. Students will have the opportunity to use the 3d printer and use programs to design objects to print.

COMPUTER-AIDED DRAFTING & DESIGN II (CAD II) 1 semester, 1/2 credit

- Elective
- Prerequisite - CAD I
- Open to grades 10 - 12

This course will extend the knowledge gained in CAD I. Students will work with multi-view drawings, 3-D drawings, and draw a variety of gears, pulleys and miscellaneous items. Students will have the opportunity to use the 3d printer and use programs to design objects to print.

ENERGY AND POWER 1 semester, 1/2 credit

- Elective
- Open to grades 9 – 12
- Offered every other year opposite Transportation

This course includes units of energy conservation and transmission, fossil fuels, solar power, and alternative energy sources. Activities include fluid power systems, building solar collectors and working on small engines. Student will bring in their own engines and perform maintenance and repairs.

MANUFACTURING 1 semester, 1/2 credit

- Elective
- Open to grades 9-12

This course is designed to provide understanding of how manufacturing systems work. Students will learn basic welding and torch procedures, while designing and building a project they will market and sell.

TRANSPORTATION 1 semester, 1/2 credit

- Elective
- Open to grades 9 – 12
- Offered every other year opposite Energy & Power

Transportation is a course that studies various modes we use to move people and goods through different environments using land, water, air and space transportation. Selected content will cover the

past, present, and future perspective of transportation. Plus, there is discussion of how 2-cycle and 4-cycle engines work.

INTRODUCTION TO ENGINEERING 1 semester, 1/2 credit

- Elective
- Open to grades 9 – 12
- Offered every other year opposite Research & Design

Introduction to engineering is an introductory study into the different fields of engineering. Intro to engineering will build on basic problem solving skills. Activities include designing a building and the building's site plan, bridge design, and system design problems.

ELECTRICITY I 1 quarter-block, 1/2 credit

- Elective
- Open to grades 10 – 12
- Offered every other year

This course is designed to allow students to diagnose and solve problems, and make various measurements with test equipment in electronics through practical applications. The course concentrates on DC circuits, Ohm's Law, and the application of basic electronic components. Students will learn basic residential wiring of switches, outlets and lights.

ELECTRICITY II 1 quarter-block, 1/2 credit

- Elective
- Prerequisite - Electricity I
- Open to grades 10 – 12
- Offered every other year opposite Wildlife Management

This course consists of the continuation and application of Ohm's Law, working with AC circuits. Lab activities utilizing analog and digital measuring devices. Students will continue their study of electrical wiring to include breaker boxes.

INDEPENDENT TECHNOLOGY PROJECTS 1 semester, ½ credit

- Elective
- Open to grades 10-12

This course allows students to work independently in one concentration of the following four areas in Technology Education: woods, metals, computer-aided design (CAD), or engineering. Students will sign a contract, declare an area of concentration, and work on in-depth projects.

RESEARCH AND DESIGN 1 semester, 1/2 credit

- Elective
- Open to grades 10 – 12
- Offered every other year opposite Introduction to Engineering

The content of the course will cover the process of research and development. R & D is a key component of modern industry. The class projects will develop a student's ability to systematically identify problems, collect information, and propose and test solutions for design problems.

All courses, including Career and Technical Education courses are available without discrimination based on race, color, religion, national origin, ancestry, creed, pregnancy, marital status, parental status, sexual orientation, sex (including transgender status, change of sex or gender identity), disability, age (except as authorized by law), military status, or physical, mental, emotional, or learning disability in any of its student programs and activities.