

**Chester-Joplin-Inverness  
Public Schools**



**Home of the  
Hi-Line Hawks**

**2015-2016  
Curriculum Guide**

**CURRICULUM GUIDE  
CJI SCHOOL COURSE DESCRIPTIONS**

**Graduation Requirements**

<b>Content</b>	<b>CJI High School</b>	<b>State of Montana</b>	<b>Montana University System</b>
<b>Minimum Total Required</b>	<b>24</b>	<b>20</b>	
<b>English</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Science</b>	<b>2</b>	<b>2</b>	<b>2 (both must be lab) one year of at least earth science, biology, chemistry or physics</b>
<b>Math</b>	<b>3</b>	<b>2</b>	<b>16 on ACT; or 3 years consecutive + one more; or 3+ on an Advanced Placement Test</b>
<b>Social Studies</b>	<b>3</b>	<b>2</b>	<b>3 (including world/global studies, American History and government, economics, Indian History, psychology, sociology or other 3<sup>rd</sup> year course)</b>
<b>Physical Education/Health</b>	<b>2</b>	<b>1</b>	
<b>Fine Arts</b>	<b>1</b>	<b>1</b>	<b>**See Below</b>

<b>Vocational/Practical</b>	<b>1</b>	<b>1</b>	<b>**See Below</b>
<b>Other Electives</b>	<b>8</b>	<b>7</b>	<b>**See Below</b>

**\*\*Montana University System requires 2 years chosen from foreign language, computer science, visual/performing arts, or vocational education or any combination.**

## **II. Schedules**

**Students will register for seven credits a year.**

## **III. Recommended Schedules:**

### **FRESHMEN**

- 1.....Credit English
- 1.....Credit Science
- 1.....Credit Math (Algebra 1)
- 1.....Credit Social Studies (Geography)
- 1.....Credit Physical Education/Health
- 2.....Credits Electives

### **SOPHOMORES**

- 1.....Credit English
- 1.....Credit Science (Biology)
- 1.....Credit Math (Geometry)
- 1.....Credit Social Studies (World History)
- 1.....Credit Physical Education
- 2.. .....Credits Electives

### **JUNIORS**

- 1.....Credit English
- 1.....Credit Social Studies (U.S. History)
- 1.....Credit Math (Algebra 2)
- 4.....Credits Electives

### **SENIORS**

- 1.....Credit English
- 1..... Credit Social Studies (Principles of Democracy)
- 5.....Credits Electives

**IV. Failure of required courses: Students who fail a required course must repeat the semester(s) failed.**

**V. Repeated Classes: If a student elects to repeat a course they have passed, both grades will be recorded on the transcript. The second grade will be used for GPA.**

**VI. Only Junior and Senior students who are not deficient in required courses are eligible to become aides.**

**VII. Montana Digital Academy: All online courses taken by the students will be approved by the administration in advance of enrollment.**

**VIII. Title 1 or Advanced classes will be assigned to students according to standardized test scores, STAR 360 scores, and teacher recommendations.**

**IX. Some classes may be offered every other year. This will be determined based on the number of student requests.**

## **AGRICULTURAL EDUCATION**

**Courses of Agriculture Education at Chester-Joplin-Inverness schools will offer units in Agricultural Business, Science and Systems as well as Leadership Development. Ag Ed is three fold in that it not only includes class time, but FFA involvement and Supervised Agricultural Experience (SAE) work. Ag Woods and Metals will also be offered as focus classes. Safety is emphasized and required in all class and shop activities. Students must realize they need to assume responsibility for their own personal safety. Examples of this include wearing safety glasses, dressing appropriately and following safety rules. Some materials for projects are provided, but the students will be responsible for providing materials for personal projects.**

### **Agricultural Education I**

**Length: One Year**

**Prerequisite: None**

**Description: This class is designed to give a basic understanding of the following areas: FFA, Parliamentary Procedure, SAE, Shop Safety, Woodworking, Land Descriptions, Ag Issues, Financial Instruments, Water Issues, Soil Science and Animal Husbandry.**

### **Agricultural Education II**

**Length: One Year**

**Prerequisite: Ag Ed I is recommended but not required**

**Description: This class is designed to give a more in-depth look into FFA, SAE, Animal Anatomy, Genetics, Plant Science, Range Management, Crop Science, Entomology, Metallurgy, Electrical Systems, Finance and Sales and Service.**

### **Agricultural Education III/IV**

**Length: One Year**

**Prerequisite: Ag Ed I and II are recommended but not required**

**Description: This class's syllabus will alternate on odd and even years with both years having units of FFA and SAE development. On odd years this class will study Record Keeping, Ag Policy, Animal Health, Biotechnology, Environmental Resources, Equine Science, Fish & Wildlife Science, Ag Construction, Precision Ag and Ag Communications. Even years will deal with Commodities, Credit, Pest and Disease Management, Agronomy, Animal Nutrition and Reproduction, Horticulture, Floriculture, Food Science, Landscaping, Water Management, Small Engines and Transmissions.**

### **Agricultural Woods I**

**Length: One Semester**

**Prerequisite: None**

**Fee: \$20**

**Description: Ag Woods I is designed to give basic instruction on shop safety, hand tools, power tools, reading and developing plans and construction of projects. A portion of class time may be designated to FFA.**

### **Agricultural Woods II**

**Length: One Semester**

**Prerequisite: Ag Ed I or Ag Woods I**

**Fee: Student will be responsible for all costs of their project. Must be paid by May 1 or project will not be taken home and bill will be sent to collection.**

**Description: Agricultural Woods II is a continuation on Ag Woods I with more detailed instruction and advanced projects. Students will plan and complete a project of their choice. A portion of class time may be designated to FFA.**

### **Agricultural Metals I**

**Length: One Semester**

**Prerequisite: None**

**Fee: \$20**

**Description:** Welding I will introduce students to welding safety, oxyacetylene welding and cutting and Arc welding. They will learn to run a horizontal bead on butt, v, lap and t welds. A portion of class time may be designated to FFA.

### **Agricultural Metals II**

**Length:** One Semester

**Prerequisite:** Ag Ed II or Ag Welding I

**Fee:** Student will be responsible for all costs of their project. Must be paid by May 1 or project will not be taken home and bill will be sent to collection

**Description:** Welding II will further educate students on welding safety, oxyacetylene welding and cutting and Arc welding as well as TIG, MIG and Plasma Cutting. They will learn to run vertical and overhead beads. They will need to plan and complete a project of their choice. A portion of class time may be designated to FFA.

### **Middle School Ag**

**Length:** One Semester

**Prerequisite:** None

**Description:** Middle School Ag is designed to give 7th and 8th graders a taste of farming, ranching and working in the agricultural industry. Units will include, but are not limited to, basic auto care, fencing, roping, cattle identification, trailer use, poultry production, agricultural by-products and cowboy poetry.

## **ART**

### **HS Art I/II**

**Duration:** 1 year; 2 semesters

**Prerequisite:** None

**Fee:** \$20

**Description:** Students will develop skills and understanding necessary to see, describe, and create imagery based on the natural world. The class will explore various art techniques based on a foundation of art elements and principles of design. Participants will use a variety of media to create both two and three dimensional art works, which include: drawing, painting, sculpture, ceramics, and printmaking. An introduction to various art styles and their historical significance is covered to help students gain awareness of how other artists were able to successfully incorporate these basic elements and principles of design in their art works.

### HS Art II/III

**Duration:** 1 year; 2 semesters

**Prerequisite:** Successful completion of HS Art I/II

**Fee:** \$20

**Description:** Students will continue to develop skills and understanding necessary to see, describe, and create imagery based on the natural world. The class will develop personal and unique art styles enhanced by their previous experience with a variety of media in HS Art I/II. Participants will build a digital portfolio of the two and three dimensional art works created throughout the duration of this course.

### MS Art

**Duration:** 1 semester

**Prerequisite:** None

**Description:** Students will develop introductory skills and understanding necessary to see, describe, and create imagery based on the natural world. The class will introduce various art techniques based on a foundation of art elements and principles of design. Participants will use a variety of media to create both two and three dimensional art works, which include: drawing, painting, sculpture, ceramics, and printmaking.

## **ENGLISH**

### English 7

**Duration:** 1 year; 2 semesters

**Prerequisite:** None

**Description:** This course develops both written and verbal communication skills, vocabulary comprehension and application, essential grammar recognition and usage, morphology, reading of informational material as well as quality literature. Throughout the course, students will implement aspects of prewriting, drafting, editing, revising, and publishing. Students will be taught to identify and apply descriptive, narrative, expository, and persuasive writing.

### English 8

**Duration:** 1 year; 2 semesters

**Prerequisite:** None

**Description:** This course develops both written and verbal communication skills, vocabulary comprehension and application, essential grammar recognition and usage, morphology, and reading of informational material as well as quality literature. Throughout the course, students will implement aspects of prewriting, drafting, editing, revising, and publishing, often incorporating Google applications to submit their work.

The course will reinforce the concepts of being able to identify and apply descriptive, narrative, expository, and persuasive writing. Students will invest a significant amount of time in creating and publishing a class magazine using their writing skills and learning how to utilize Adobe Photoshop and InDesign CS5 to do so.

### **English 9**

**Duration:** 1 year; 2 semesters

**Prerequisite:** None

**Description:** This course exposes students to various forms of literature from all over the world, develops both written and verbal communication skills, and explores universal themes. The student is expected to master paragraph and simple essay structure, developing sentence skills and organization. The culminating writing activities are the student's first experience in writing a documented research paper. Additionally, the student will work on critical thinking and reasoning skills, mastering vocabulary and usage, and develop note taking and organization strategies.

### **English 10**

**Duration:** 1 year; 2 semesters

**Prerequisite:** Successful completion of English 9

**Description:** This course is an in-depth extension of the literary criticism and critical skills introduced in English 9. More detailed analysis of various forms of literature and writing are designed to include a sequential progression from English 9, through high school.

### **English 11**

**Duration:** 1 year; 2 semesters

**Course Description:** This course provides students with a survey of important literary periods and works from American Literature. Students study key literary terms and concepts along with notable American authors. Additionally, students will perform a variety of writing tasks, including literary analysis, personal reflection, written persuasion, and research-based composition.

### **English 12**

**Duration:** 1 year; 2 semesters

**Course Description:** This course allows students the opportunity to explore literature from around the world. Emphasis may be placed on British Literature. The study of writing continues, with the addition of the college application portfolio. This course will reinforce spelling, grammar, and mechanics as students progress through the writing, editing, and publishing stages of essay development.



### **Pre-Advanced Placement English**

**Duration: 1 year; 2 semesters**

**Prerequisite: Teacher Recommendation/Approval**

**Course Description: This course is an accelerated course requiring students to think deeply and richly about both fiction and non-fiction, offering students a blend of classic and contemporary works from authors of diverse backgrounds. While the course emphasizes a variety of writing skills in preparation for Advanced Placement English, it also introduces concepts that will be addressed more thoroughly in AP. Students should expect a rigorous, challenging, active experience in this course.**

### **Advanced Placement English**

**Duration: 1 year; 2 semesters**

**Prerequisite: Teacher Recommendation/Approval**

**Course Description: The AP English Literature and Composition course is designed with the goal of enhancing students' abilities to explore, comprehend, interpret, evaluate, and appreciate complex literary texts. Upon completion of this course a student should be proficient in discussing literature of varied themes, historical contexts, and genres whether it be in an on-demand, timed writing prompt, an in-depth, scrutinized, and revised essay, or in class discussion.**

### **Movies and Literature**

**Duration: 1 semester**

**Prerequisite: This class is reserved for sophomores, juniors, and seniors that have maintained a "B" average in their English classes.**

**Course Description: This course is designed to introduce students to the study of the relationship between various genres of literature and film. Units will explore short story, novel, and film while examining the issues and elements pertaining to the genres and examining the role of screenwriters and directors as they influence the transferral of an original writing to film. Students will also encounter a brief summary of film history, as well as the elements of film and filmmaking. Students will read various criticisms of films viewed. Students will be expected to complete various writing tasks in response to both the literature and the movies. They will also create their own storyboard to get involved in the process of condensing, portraying, and shaping an original work.**

## **FAMILY and CONSUMER SCIENCES**

**Course: Middle School Family and Consumer Science- 7<sup>th</sup> and 8<sup>th</sup> grade**

**Length: 1 semester**

**Prerequisite: NoneClass**

**Fee: \$20**

**Description: Students will be introduced to and establish a baseline of the major components of FCS: Culinary Safety, Culinary Production and Nutrition, Personal and Family Finance, and Textiles.**

**Course: Culinary-I**

**Length: 1 year**

**Prerequisite: None**

**Class Fee: \$20**

**Description: Students will be introduced to multiple levels of FCS as well as build on basic knowledge of Food Safety and Production, Nutrition, Food Service, and Hospitality.**

**Course: Advanced Culinary**

**Length: 1 year**

**Prerequisite: Culinary-I or Junior/Senior Standing**

**Class Fee: \$20**

**Description: Students will build on their knowledge from level 1. Units will include a higher level of knowledge and involvement from Culinary-I. We will be using the ProStart Curriculum which also involves field trips and hands-on experience in the Tourism and Hospitality Industry.**

**Course: Life Skills**

**Length: 1 year**

**Prerequisite: Any FCS Class**

**Class Fee: \$20**

**Description: Throughout the year, students will experience real-life scenarios pertinent to life outside of school. Units include self-awareness and maintenance, finance, goals and values, The 7 Habits of Highly Effective Teens, credit, loans, retirement, college life and more.**

**Course: Child Development**

**Length: 1 semester**

**Prerequisite: Any FCS class**

**Class Fee: \$20**

**Description: The semester long class travels through the development of children from conception to adulthood. Students will learn the developmental milestones and development theorists through instruction, observation and practice. Parenting, careers in Child Development, teen pregnancy, childhood diseases, nutrition, neglect and abuse and more are explored throughout the semester. We will be pairing with local child care centers**

and grades 1-12 to observe children and notice their developmental stage. The Ready or Not Tot is used in this class. Students will be required to care for the Tot in lifelike scenarios and parenting.

## **HEALTH ENHANCEMENT**

### **Middle School Health and Physical Education**

**Duration:** 2 years; 4 semesters

**Prerequisite:** None

**Description:** Health and Physical Education students will participate in units based on lifetime activities, individual activities, and team activities with a focus on skill development. Students will understand the importance of living a healthy lifestyle with the knowledge presented through various health lessons. The students will also participate in various workouts and will be introduced to weight training. It is important that the students have shorts, a shirt, and gym shoes for class.

### **9<sup>th</sup> Grade Health and Physical Education**

**Duration:** 1 year; 2 semesters

**Prerequisite:** None

**Description:** Students will learn the skills and knowledge needed to live a healthy lifestyle. Physical Education units will focus on lifetime activities, team activities, and individual activities with a focus on skill development. The students will also participate in various fitness activities, which include: strength training, agility, plyometrics, high intensity interval training, and injury prevention activities. Students will be able to obtain the knowledge needed to live a healthy lifestyle through a variety of health lessons. Students will need gym clothes, shoes, and hygiene products.

### **10<sup>th</sup> Grade Health and Physical Education**

**Duration:** 1 year; 2 semesters

**Prerequisite:** Successful Completion of 9<sup>th</sup> grade Health and Physical Education

**Description:** Students will learn the skills and knowledge needed to live a healthy lifestyle. Physical Education units will focus on lifetime activities, team activities, and individual activities with a focus on skill development. The students will also participate in various fitness activities, which include: strength training, agility, plyometrics, high intensity interval training, and injury prevention activities. Students will be able to obtain the knowledge needed to live a healthy lifestyle through a variety of health lessons. Students will need gym clothes, shoes, and hygiene products.

### **Advanced Health and Physical Education**

**Duration:** 1 year; 2 semesters

**Prerequisite: None**

**Description: Students will learn the skills and knowledge needed to live a healthy lifestyle. Physical Education units will focus on lifetime activities, team activities, and individual activities with a focus on skill development. The students will also participate in various fitness activities, which include: strength training, agility, plyometrics, high intensity interval training, and injury prevention activities. Students will be able to obtain and apply the knowledge needed to live a healthy lifestyle through a variety of health lessons. Students will need gym clothes, shoes, and hygiene products.**

## **JOURNALISM**

### **Journalism I**

**Duration: 1 year, 2 semesters**

**Prerequisite: None**

**Description: This course is designed to give students exposure to the operations of publishing a school newspaper. Students will rotate assignments, utilizing skills in writing, interviewing, and gathering information. Students will also learn how to operate a digital camera and improve their photography skills. Students will utilize Adobe Photoshop to edit and refine pictures, and they will expand their learning on how to operate InDesign CS6 as they design layouts. They will briefly study the historical background for journalism. Throughout this course, students will be applying how to write strong leads, incorporate fitting and interesting captions, meet deadlines, and collaborate as a team to publish the school newspaper.**

### **Journalism II--Annual**

**Duration: 1 year, 2 semesters**

**Prerequisite: Journalism I preferred**

**Description: This course is designed to produce the school annual. Students may also have opportunities to create programs, brochures, invitations, and posters for the school and community. Primarily, though, students will identify the important features of an annual and work toward gathering the appropriate pictures and information needed for each page they are assigned. Students will utilize photography skills as well as advanced Adobe Photoshop skills to edit and refine pictures. Furthermore, students will expand their learning on how to operate InDesign CS6 as they design layouts. Students will incorporate writing skills as needed for various pieces within the annual. Students will also sell ads and design them as necessary for the annual. Great emphasis is placed upon editing and refining the assigned pages to achieve a quality product that is desirable for the student body to purchase and an accurate record of the school year.**

## **MATHEMATICS**

### **ALGEBRA I**

**Length: 1 Year**

**Prerequisites: Successful completion of eighth grade math.**

**Description: The course is designed for those students that have a good understanding of the basic fundamentals of arithmetic. This course will include instruction on expressions, arithmetic with polynomial and rational expressions, creating and reasoning with equations and inequalities, interpreting data, interpreting and building functions, and working with linear, quadratic and exponential models. The real number system will be used in all areas.**

**Course Requirements: Students are required to have a notebook for taking notes, a pen and a pencil. A calculator may be purchased or checked out from the instructor.**

### **ALGEBRA II**

**Length: 1 Year**

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

**Description: Algebra II is a continuation of the concepts learned in Algebra I. Algebra II will expand all concepts to the complex number system. Additional topics of instruction will include making inferences and justifying conclusions with statistics, using probability to make decisions, and trigonometric functions.**

**Course Requirements: Students are required to have a notebook for taking notes, a pen and a pencil. A calculator may be purchased or checked out from the instructor.**

### **CALCULUS**

**Length: 1 Year**

**Prerequisites: Successful completion of Algebra II is a must. Successful completion of Trigonometry/Precalculus is preferred.**

**Description: Calculus is designed as a college preparatory course aimed at broadening the student's overall math skills in analysis and reasoning. Major emphasis is placed on advanced algebraic operations and analysis. This course will include studying functions, limits, differentiation, integration, vectors and statistics.**

**Requirements: Students are required to have a notebook for taking notes, a pen and a pencil. A calculator may be purchased or checked out from the instructor.**

### **Finance/College Algebra**

**Length: 1 Year**

**Prerequisites:** Successful completion of Algebra II is a must. Successful completion of Trigonometry/Precalculus is preferred.

**Description:** The finance aspect of this class utilizes a Dave Ramsey program called **Foundations in Personal Finance: High School Edition**. This program focuses on assisting students in making wise financial choices starting the day they enter the class. They learn how to stay out of debt, make a budget, buy insurance, invest, manage a checkbook, etc... The College Algebra portion of this course focuses on preparing students for the math courses they will encounter in college. All aspects of Algebra I and Algebra II are revisited with the hope that the students will be able to jump right to the math course required for their degree.

**Requirements:** Students are required to have a notebook for taking notes, a pen and a pencil. A calculator may be purchased or checked out from the instructor.

## **GEOMETRY**

**Length:** 1 Year

**Prerequisite:** Algebra I

**Description:** This course places an emphasis on developing logical methods for solving problems, as well as improving students' ability to explain their thinking. A key component of this course will be developing and proving geometric and algebraic theorems and postulates. Additional areas of study will include probability, congruence, similarity, right triangles, trigonometry, circles, expressing geometric properties with equations, and geometric measurement and modeling.

**Requirements:** Students are required to have a notebook for taking notes, a pen and a pencil. A calculator, a protractor, a ruler, and a compass may be purchased or checked out from the instructor.

## **Math 7**

**Length:** 1 Year (2 Semesters)

**Prerequisite:** None

**Description:** This course will include the Common Core State Standards for 7th Grade. These include the following Clusters:

- Analyze proportional relationships and use them to solve real-world and mathematical problems.
- Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
- Use properties of operations.
- Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

- Draw, construct, and describe geometric figures and describe the relationships between them.
- Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.
- Use random sampling to draw inferences about a population.
- Draw informal comparative inferences about two populations.
- Investigate chance processes and develop, use, and evaluate probability models.

**Requirements:** Students are required to have a notebook for taking notes, a pen, a simple calculator (no fractions), and a pencil.

### **Math 8**

**Length:** 1 Year (2 Semesters)

**Prerequisite:** 7th Math

**Description:** This course will include the Common Core State Standards for 8th Grade.

**These include the following Clusters:**

- Know that there are numbers that are not rational, and approximate them by rational numbers.
- Work with radicals and integer exponents.
- Understand the connections between proportional relationships, lines, and linear equations.
- Analyze and solve linear equations and pairs of simultaneous linear equations.
- Define, evaluate, and compare functions.
- Use functions to model relationships between quantities.
- Understand congruence and similarity using physical models, transparencies, or geometry software.
- Understand and apply the Pythagorean Theorem.
- Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.
- Investigate patterns of association of bivariate data.

**Requirements:** Students are required to have a notebook for taking notes, a pen, a simple calculator (no fractions), and a pencil.

### **Math 1.5**

**Length of class:** Year, 1 credit, students who fail 1st Sem may need to drop the course.

**Prerequisite:** Algebra 1

**Grade level:** 10, 11, 12

This course is for the student who received a “low C” or “D” in 1st year Algebra. The intent of the course is to strengthen a student’s basic algebra and geometry skills in preparation for a geometry course, or provide an adequate algebra background to allow students to pursue technical training courses. A review of the 1st year algebra course will be followed by selected topics from geometry, 2nd year algebra and trigonometry concepts. Geometry, Trigonometry and Algebra II topics will be an intuitive introduction to these courses with an emphasis on hands-on manipulative skills and activities.

### **TRIGONOMETRY/PRECALCULUS**

**Length: 1 Year**

**Prerequisites: Successful completion of Algebra II.**

**Description: Trigonometry/Precalculus is a course that expands on the topics learned in Algebra II. Students will study more advanced concepts in linear relations and functions, systems of equations and inequalities, graphing, and polynomial and rational functions. Additionally, students will study trigonometry. This will include trigonometric (trig) functions, graphs and inverses of trig functions, trig identities and trig equations. Students will also venture further into vectors, parametric equations, conics, exponential and logarithmic functions, sequences and series, combinatorics, probability and statistics.**

## **MONTANA DIGITAL ACADEMY**

Course Catalog available at <http://montanadigitalacademy.org/>

### **MS READING**

#### **Reading 7**

**Duration: 1 semester**

**Prerequisite: None**

**Course Description: This course is designed to expose students to a variety of informational material and literature. Students read novels, a screenplay, and poetry while exploring the theme of heroism. Students also view a selection from various media that correspond with the novels read or that relate to the overarching theme of heroism. Students will work especially on note-taking, summarizing, evaluating, and writing in response to the pieces read in class. Students’ understanding of plot, theme, setting, and characterization will culminate in creative projects as students approach the end of each novel selection.**



## **Reading 8**

**Duration:** 1 semester

**Prerequisite:** None

**Course Description:** This course is designed to expose students to a variety of informational material and literature. Students read novels and poetry while exploring the overarching themes of survival, overcoming obstacles, coming of age, and justice. Students also view a selection from various media that correspond with the novels read or that relate to the themes explored. Students will work especially on note-taking, summarizing, evaluating, and writing in response to the pieces read in class. Students' understanding of plot, theme, setting, and characterization will culminate in creative projects as students approach the end of each novel selection. The course will utilize technology as they construct their projects and as they work on writing projects. Students will briefly study the Dust Bowl period and the Civil Rights era to have a historical context for the novels they will read.

## **MUSIC**

### **Band**

**Length:** 1 or 2 Semesters

**Concert Band** is a performance ensemble that places its emphasis on quality performance of standard and contemporary band literature and is designed for the advancing student musician. This class may provide the opportunity for its members to participate in a variety of concerts, festivals, marching performances, pep band, small ensembles and travel opportunities. Membership in this group will require attendance at the following musical events:

**Christmas Concert**

**District Music Festival**

**Spring Concert**

This is not intended as an exhaustive list of performances; others may occur which may or may not be mandatory as course requirements.

### **Choir**

**Length:** 1 or 2 Semesters

**Prerequisite—Audition with director**

**The Select Ensemble** is a choir of mixed voices and is the elite performing vocal ensemble at SHS. Each student must demonstrate a high caliber of vocal skills and musicianship. The class provides a refinement of musical skills and vocal and movement technique, study of a

variety of choral styles and literature, and participation in various concerts, community outreach performances, festivals and travel opportunities.

Membership in this group will require attendance at the following musical events:

- a. Christmas Concert
- b. Pre-Festival Concert
- c. District Music Festival
- d. Spring Concert

This is not intended as an exhaustive list of performances; others may occur which may or may not be mandatory as course requirements.

## **SCIENCE**

### **Physical Science - Grade 8**

**Length: Full Year**

The 8<sup>th</sup> grade Physical Science course divides the year between Physics and Chemistry. Concepts include: physical and chemical properties of matter, models, conservation laws, energy, the electromagnetic spectrum, waves, forces and motion, electricity, magnetism, the periodic table, elements, and binary compounds. Students will be involved in activities and use scientific process skills as a basis for defining and solving problems and answering questions.

### **Earth Science**

**Length: One Year-Freshman Course**

**Description:** The purpose of this class is to familiarize the students with the following areas:

- a. Exercise safe practices in the use of tools and methods employed by earth scientists and use problem solving techniques and methods.
- b. Demonstrate how earth science relates to careers, personal uses, and social needs and demonstrate an awareness of economic, environmental, ethical, and social concerns.
- c. Geology – rocks, minerals, plate tectonics, constructive and destructive forces, and geologic history.
- d. Astronomy – theories of origin of the universe, stars, and space exploration.
- e. Meteorology – hydrologic cycle, atmosphere, weather, and climate.
- f. Oceanography – properties of seawater, tides, waves, currents, flow of energy.

**Requirements:**

1. Notes
2. Quizzes and Tests
3. Lab work

4. Class participation
5. Written assignments

### **Biology**

**Length: One Year- Sophomore Course**

**Description: The purpose of this class is to familiarize the students with the following areas:**

- a. Use the scientific method to investigate and solve biological topics.
- b. Utilize lab investigations and lab techniques to enhance learning, including microscope use and dissections.
- c. Investigate the characteristics of living things and recognize the classification system of living organisms.
- d. Develop an understanding of ecological principles and the role of humans in the biosphere.
- e. Demonstrate an understanding of the chemical basis of living things
- f. Gain an understanding of cellular transport, cell structure, and cell function.
- g. Be aware of the biochemical relationship between cellular respiration and photosynthesis.
- h. Investigate the diversity of microorganisms and their roles in the biosphere.
- i. Relate the principles of genetics to heredity in organisms.
- j. Apply the theory of evolution to explain adaptation and speciation.

**Requirements:**

1. Notes
2. Quizzes and Tests
3. Lab Work
4. Class Participation
5. Written Assignments

### **Chemistry**

**Length: One Year**

**Prerequisite: Junior or Senior Status**

**Description: Chemistry is the study of matter and the changes it undergoes. Concepts covered include:**

- a. Appropriate lab techniques and use of the scientific method to conduct lab activities.
- b. Applying appropriate mathematical skills in solving problems including molar calculations and stoichiometry.
- c. Investigate the properties and classification of matter.
- d. Describe the location and arrangement of the parts of the atom.

- e. Use the periodic table to interpret and predict the properties of an atom based on electron configuration.
- f. Interpret bonding types, name compounds, and write formulas.
- g. Write balanced equations, recognize reactions, types of reactants, and products.
- h. Recognize the relationship between chemistry and current environmental problems as well as the application of chemical principles in various occupations and interest.

**Requirements:**

1. Quizzes and tests
2. Written assignments
3. Lab work
4. Class Participation

**Physics**

**Length: One Year**

**Prerequisite: Geometry and Algebra II and Junior or Senior Status**

**Description: Physics is the study of matter and energy. Concepts covered include:**

- a. Appropriate use of lab techniques and the scientific method.
- b. Use of mathematics and critical thinking skills to solve problems.
- c. Analyze and interpret data.
- d. Mechanics – laws of motion, relationships between mass, distance, force, and time, and conservation laws.
- e. Heat – basic laws of thermodynamics.
- f. Waves – reflection, refraction, optical systems, types of waves, electromagnetic spectrum
- g. Electricity and magnetism
- h. Modern physics- quantum physics, relativity, and astrophysics.

**Requirements:**

1. Quizzes and tests
2. Written assignments
3. Lab work
4. Class Participation

**Advanced Biology**

**Length: Full year**

**Prerequisites: Biology and Senior Status**

**Description: Study of the human body including:**

- a. Terminology
- b. Types of cells, tissues, and organs
- c. Cellular processes including mitosis, cellular respiration, transport

- d. Organ systems
- e. Safe and appropriate lab techniques including microscopes and dissection

**Requirements:**

- 1. Quizzes and tests
- 2. Written assignments
- 3. Lab work
- 4. Class Participation

### Advanced Chemistry

**Length: Full year**

**Prerequisites: Chemistry and Senior Status**

**Description: The students will build off of the foundations learned in Chemistry. Topics include**

- a. Demonstrating safe and appropriate lab techniques in the lab.
- b. Energy
- c. Chemical Bonding – types of bonds and Lewis structures
- d. Gases and calculations using gas law equations
- e. Liquids and solids – including intermolecular forces
- f. Solutions- including molarity and normality
- g. Acids and Bases – including pH and pOH calculations
- h. Equilibrium
- i. Oxidation-Reduction Reactions and Electrochemistry
- j. Organic Chemistry
- k. Biochemistry

**Requirements:**

- 1. Quizzes and tests
- 2. Written assignments
- 3. Lab work
- 4. Class Participation

## **SOCIAL STUDIES**

### Geography

**Length: 1 Year**

**Prerequisite: Freshman Status**

**Geography is an introductory history class for high school students. Throughout the course students will study maps and diagrams of our planet and how cartographers go about making the maps for our world. Focus will be places on the basics of geography, different**

types of maps, landforms and resources, climate regions, culture and economic differences from all the corners of our world.

### **Principles of Democracy**

**Length: 1 Year**

**Prerequisite: Senior Status**

Through out the course, students will develop and be able to understand the basis that our government functions at a national, state and local level. Students will learn and compare governments from around the world to the Democratic Republic we have here in the United States. Students will also examine and be able to comprehend the meaning and function of documents such as the Bill of Rights and Constitution along with the function and responsibilities of each branch of our government (legislative, judicial and executive). Looking at the relationship that local, state and national government and how they have and currently work together to resolve specific issues in our nation or overseas. Using current events will also be a key component of this course.

### **Psychology (Introduction)**

**Length: 2nd Semester**

**Prerequisite: Junior/Senior Status**

**Requirements include: Quizzes, Tests, Written assignments, Book Readings, Research** Psychology is an introductory course for students to the scientific study of human behavior. The brain, genes and the environment will be investigated. Early childhood growth and development as well as other stages of life are explored. Students will learn about motivation, learning, perception, memory, personality, intelligence and understanding one's own behavior. In Introduction to Psychology, students will take a look and study the psychology of pop culture in the form of super heroes. This type of approach to psychology will give the students a different outlook on the field pertaining to the way that popular figures, i.e. Batman, thinks and perceives the world around him.

### **Sociology (Introduction)**

**Length: 1st Semester**

**Prerequisite: Junior/Senior Status**

**Requirements include: Quizzes, Tests, Written assignments, Book Readings, Research Projects, and Class Participation.**

Introduction to Sociology is one semester course intended to give you a broad picture of the field of sociology with an emphasis on preparation for college and critical thinking. This course is all about problem-solving and working in groups. The course will offer you a set of intellectual tools with which to more accurately understand the society in which you live.

## **US History**

**Length: 1 Year**

**Prerequisite: Junior Status**

**Throughout this course, students will be studying the key aspects of The United States which will focus on the economic, social, political and geographic changes and developments that our country has gone through. US History will also place focus on how personal/political morals, ideas and philosophies have changed since the birth of our nation to where we are today as a nation.**

## **World History**

**Length: 1 Year**

**Prerequisite: Sophomore Status**

**Throughout this course students will study and be able to describe world history from the very first cultures and civilizations to the current civilizations inhabiting our planet today. The main focus points will be looking at the changes in political, military, cultural and economic values and advancements since the first developed civilization. This will allow students to see how and why we have arrived at the place we currently are as a human race.**