**HIGH SCHOOL DUAL CREDIT CLASSES (Peru State College - Metro College - Other courses available from other colleges based on need/request)**

Psychology (Offered as Dual Credit through Peru State College)

Grades: 11-12

Credit: 5 (High School) - 3 (College)

This course is a general introduction to contemporary psychology focusing on basic concepts, principles, terminology, trends in psychological research, and the application of this knowledge.

Sociology (Offered as Dual Credit through Peru State College)

Grades: 11-12

Credit: 5 (High School) - 3 (College)

This course is an introductory study of group and social dynamics, cultures, social problems, social institutions, intergroup relationships, and the impact of social policies.

Human Growth & Development (Offered as Dual Credit through Peru State College)

Grades: 12

Credit: 5

Human Growth and Development is planned to acquaint you with developmental concepts in psychology and to give you an understanding of the basic dynamics, which underlie human behavior at various stages in the lifespan. You will have the opportunity to study human development from conception through childhood.

College Algebra (Offered as Dual Credit through Metro College)

Grades: 11 & 12

Credits: 5 (High School) - 5 (College)

This course covers advanced algebra topics that include rational expressions; solving quadratic, rational, radical, and polynomial equations; relations and functions; quadratic and polynomial functions; systems of equations and inequalities; exponential and logarithmic functions; and matrices.

Trigonometry (Offered as Dual Credit through Metro College)

Grades: 11 - 12

Credits: 5 (High School) - 4.5 (College)

Topics include trigonometric ratios, triangles, vectors, circular functions, trigonometric identities, trigonometric equations, and complex numbers.

Statistics (Offered as Dual Credit through Metro College)

Grades 12

Credits: 5 (High School) - 4.5 (College)

This course requires students to develop a critical and functional understanding of data. Topics include frequency distributions, measures of central tendency and dispersion, probability and probability distribution, sampling concepts, estimating means, variances, standard deviations, proportions and percentages, hypothesis testing, and correlation and linear regression.

Calculus (Offered as Dual Credit through Metro College)

Grades: 12

Credits: 5 (High School) - 7.5 (College)

This course covers the mathematical tools used to analyze the continuous rate of change between variables. It reviews some principles of pre-calculus and investigates limits, differentiation, and integration. The course includes applications of both differentiation and integration.

English 101 Composition (Offered as Dual Credit through Peru State College)

Grades: 12

Credit: 5 (High School) - 3 (College)

A study of the principles of clear and effective expression as applied to the sentence, paragraph, and the whole composition. It includes a review of grammar, mechanics, correct usage, as well as training in organization and the writing of short and long papers. This course, with some exceptions, is required course for all freshmen. Each semester the department will offer at least one special focus course but no more than two.

English 202 Literary (Offered as Dual Credit through Peru State College)

Grades: 12

Credit: 5 (High School) - 3 (College)

Meets a general education requirement designed to increase the student’s appreciation of literature with an emphasis on modern literary forms.

**SOCIAL STUDIES**

World History (Jr. High)

Grade: 7

This course is one that combines elements and subjects from ancient times to the present day. Several civilizations that have a lasting impact (cultures, social problems and institutions, and relationships) on the modern world are covered. The course will prove to be relevant for overall development of academic skills.

US History (Jr. High)

Grade: 8

This course is one that will provide students with an overview of US history from how the American spirit was born, and why it flourished even from the early years to the Reconstruction era. Particular emphasis is placed on the people, events, and ideas that shaped the early years of America’s history.

World Geography

Grade: 9

Credits: 10

The World Geography course familiarizes students with the world using the five geographic themes and essential elements. Students will develop skills and knowledge about location, place, human/environmental interaction, movement, and regions. World Geography class will compare and contrast these themes across all continents. Special attention will be given to the most essential skills and knowledge of the discipline. World Geography class will focus on geographic habits of mind to promote higher level thinking and problem solving. World Geography class will require students to apply skills and knowledge to content information involving different regions of the world. World Geography class will integrate thinking skills, technology, historical processes, and content so that students are able to apply the learning to their own lives. Students will be able to apply their geographic knowledge to their community, state, nation, and the world.

World History

Grade: 10

Credit: 10

This course will provide students the opportunity to explore key events and global historical developments since the beginning of civilization and how those events have helped shape today’s world. This course provides the latitude to range widely across all aspects of human experience: economics, science, religion, philosophy, politics and law, military conflict, literature and the arts.

US History

Grade: 11

Credit: 10

This course is one that will provide students with an overview of US history from the Reconstruction Era to the present. Particular emphasis is placed on the people, events and ideas that have shaped our nation during this time.

American Government/Economics (semester classes)

Grade: 12

Credit: 10 (5 credits per semester)

American Government

This course is one that will provide students with an overview of American Government from its beginning to the way our system works. Particular emphasis is placed on the foundations of government, the Constitution, the Branches of government, the Political Process, and Elections.

Economics

This course is one in which students learn the fundamental concepts of economics and apply them in intellectually and engaging ways. Students will gain a general understanding of economics and economic philosophy that will enable them to assess and evaluate the U.S. economy and their personal finance more successfully.

**SCIENCE**

Life Science (Jr. High)

Grades: 7

In Life Science, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Life Science study a variety of topics; Cells; Reproduction & Heredity; Life over Time; Earth’s Organisms; The Human Body Systems; Human Health; Interactions of Living Things; Earth’s Biomes & Ecosystems; Earth’s Resources; and Human Impact on the Environment.

Earth Science (Jr. High)

Grades: 8

In Earth Science, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Earth Science study a variety of topics; Earth’s Surface; Earth’s History; Minerals and Rocks; The Earth’s Layers; Plate Tectonics; Mountains, Volcanoes & Earthquakes; Earth’s Water; Oceanography; Earth’s Atmosphere; Weather & Climate; The Universe; The Solar System; The Earth-Moon-Sun System; and Exploring Space.

Physical Science

Grades: 9

Credit: 10

In Physical Science, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Physical Science study a variety of topics; Matter and their states; Atoms; Periodic Table; Structure of Matter; Motion; Forces; Work and Energy; Heat and Temperature; Waves; Sound and Light; Electricity and Magnetism.

Biology

Grade: 10

Credit: 10

Students will investigate several biological concepts in the classroom by incorporating and exploring essential information, principles, processes, theories, and models throughout the year. Topics throughout year will consist of the nature of science, structure and function of cells and principles of genetics, evolution, and ecology.

Standard Science/ACT Prep

Grade: 11

Credit: 10

This course will be covering various scientific areas that meet the requirements of our state standards. Students will gain a greater knowledge in biological principles, chemistry and physics laws, and earth and space topics. Students will be using inquiry and critical thinking skills to understand various scientific phenomenon. Another aspect of the course is ACT preparation. Throughout the school year, students will be given various practice materials to enhance their understanding of the science section of the ACT.

Anatomy and Physiology

Grades: 11-12

Credits: 10 (5 credits per semester)

This course introduces foundational concepts involving the human body. This course will include concepts such as directional terms and the study and function of human cells and tissues. Also, a major portion of the course will be discussing a variety of organ systems and how they all function together through physiology. Concepts will be more thoroughly explored with hands-on learning.

Microbiology (Bi-Annual)

Grades: 11-12

Credits: 10

This course is designed to give a basic understanding of the biology of microorganisms such as; viruses, bacteria, protozoans, fungi, and algae. The course will also discuss the interaction of microorganisms with the human body. This class will include extensive laboratory time to fully understand microorganisms and how to identify multiple organisms.

Chemistry (Bi-Annual)

Grades: 11-12

Credits: 10

This course introduces foundational chemical concepts from an inorganic, organic, and biological perspective. Topics include the structure and physical properties of matter, use of the Periodic Table, development of the atomic theory, chemical bonding, stoichiometry, and chemical reactions. Many concepts will require the use of mathematic skills to complete measurements, conversions and calculations. Concepts introduced in lecture will be enhance by hands-on experience in the laboratory.

Medical Terminology and Health Careers (Bi-Annual)

Grades 11-12

Credits: 10

Throughout the course of this year, students will study various vocabulary terms that revolve around careers in the Health Field. By studying root words, prefixes, and suffixes, students will develop an extensive medical vocabulary. Anatomy and physiology of the human body will also play a large part in the curriculum but previous knowledge is not needed prior to this course. For the Health Careers portion of the class, students will be exploring the many occupations in the medical field.

Physics (Bi-Annual)

Grades: 11-12

Credits: 10

Throughout this course, students will use critical thinking skills and the scientific method to solve problems. Many concepts throughout this course will rely heavily on the use of mathematical skills. Topics that will be introduced to students will be the nature of science, measurements and conversions, laws of motion, forces, conservation of energy and momentum, gas laws, thermodynamics, and the characteristics and behavior of waves. Hands-on experiences in the laboratory will enhance the concepts learned throughout this course.

**CAREERS AND COLLEGE PREP**

Junior High Careers:

Grade: 7-8

This course is designed to guide students through the process of investigation and the development of a high school, college, and career achievement plan. Students will explore their interests, abilities and educational and career information to make informed decisions. This information will be used to explore educational requirements for a variety of chosen career paths.

College Prep (Seniors going to 2-4 year college):

Grade: 12

Senior Career and College Prep focuses on the skills and strategies necessary for students to make a successful transition into high school and an academic career. Students will explore the options available in high school, higher education, and the professional world. Students will identify likes and dislikes, talents, and hobbies. The course focuses on self –understanding, decision-making, resiliency, attitude, character, social skills and leadership to help students maximize personal achievement in high school and beyond. Additionally, the course emphasizes proactive problem solving, self-determination, and independent thinking skills.

**PYSICAL AND HEALTH EDUCATION**

9th Grade PE/Health

Grade: 9

Credits: 10

This course (PE) is designed to assist students in obtaining accurate information for developing lifelong positive attitudes and behaviors, and making wise decisions related to their personal health. Study will include personal and community health, mental, emotional and social health, injury prevention and safety, nutrition, alcohol, tobacco and other drugs, and growth development. Physically, students will work on exercise, cardiovascular, strength, endurance and flexibility. A variety of fitness, skills, individual, and field activities will promote the development of lifetime fitness skills. Activities include: flexibility, strength, agility, endurance, balance and coordination. Lifetime activities such as volleyball, badminton, table tennis and pickle ball will be covered to name a few. Students will have the opportunity to work with heart monitors and pedometers as well as have their own weight training program.

The second part of this class (Health) focuses on living a healthy lifestyle through information to guide people in making healthy choices. Topics covered, but not limited too are stress, nutrition, caring for your body, the life cycle, drugs, alcohol, tobacco, first aid, healthy relationships and diseases. Students will be given the opportunity to be CPR certified through the American Heart Association.

Life Skills PE

Grades: 9-10-11-12

Credit: 10

In this course, the following areas are covered: Building a Strong Foundation; Becoming and Staying Physically Active; Moderate & Vigorous Physical Activity; Muscle Fitness & Flexibility; Healthy Choices; Wellness Perspective; Moving through Life. Activities students will be involved in: Bow Hunter Education & Archery; Boater Education; Hiking and Exploring Nature; Fishing; Trapping; Frisbee Golf; Service Learning Activities and other physical activities.

Strength & Conditioning

Grades: 9-10-11-12

Credit: 10

Strength and conditioning class emphasizes constantly-varied, high-intensity functional movement. Work cardiovascular endurance, stamina, strength, flexibility, power, speed, coordination, agility, balance, and accuracy, maximizing your performance and fitness for any physical challenge or activity.

Advanced PE

Grades: 10-11-12

Credits: 10

This course is designed to give students the opportunity to learn fitness concepts and condition techniques for obtaining optimal physical fitness. Study will include team and leisure sports as well as lifelong fitness. Students will be empowered to make wise choices, meet challenges and develop positive behaviors in fitness, wellness and movement activity. There will also be an emphasis on stretching exercises as well as cardiovascular fitness with the use of such things as heart monitors. Each student will have an individual personal workout plan for weight training. Activities include: lifetime fitness, basic skills, movement and knowledge in the following individual, dual and team activities will be presented: volleyball, badminton, pickle ball, table tennis, basketball, horseshoes, softball and frisbee golf. This course may be repeated.

**FOREIGN LANUAGES**

Introductory Foreign Language (Jr. High)

Grade: 7

Students will be introduced to basic vocabulary in the target language through the use of mixed media. This class will focus on the study skills needed to learn a foreign language and the proper pronunciation of words. The goal is to instill curiosity and excitement about a culture and language not their own.

Introductory Foreign Language (Jr. High)

Grade: 8

Students will be introduced to a broader vocabulary base and basic grammar structures that allow them to interact in common every day conversations. This introductory course will continue to build on study strategies and work to strengthen the comfort level of pronouncing foreign words and speaking a foreign language.

Spanish I

Grades: 9-12

Credits: 10

An introduction to basic Spanish language through a balanced four-skills approach to learning that entails listening, speaking, reading, and writing activities. Multimedia resources will be used to enhance these skills. Level I will cover subjects and grammar necessary for communication in daily situations. Cultural and/or historical readings are included in each lesson to enhance reading strategies such as using context clues. Possible field trips to Hispanic businesses will enhance the use of these skills and give students a real world experience.

Spanish II

Grades: 10-12

Credits: 10

Prerequisites: Student must have taken and passed Spanish I

Through mixed media, Level II reviews and builds upon the basic grammar concepts touched upon in Level I. It continues with additional structures, expressions, and vocabulary. Listening and speaking skills will continue to be developed through auditory and verbal activities. Culture will continue to be explored through cultural/historical texts.

Spanish III

Grades: 11-12

Credits: 10

Prerequisites: Students must have taken and passed both Spanish I and II.

During the third year of study, students will continue to build upon grammar and vocabulary learned in the previous years as well as be introduced to more complex verb tenses. They will sustain conversation on familiar subjects, read short stories, and focus on writing longer original compositions. Activities are geared toward the development of higher-level and critical-thinking skills and will include multimedia resources.

French I

Grades: 9-12

Credits: 10

An introduction to basic French language through a balanced four-skills approach to learning that entails listening, speaking, reading, and writing activities. Multimedia resources will be used to enhance these skills. Level I will cover subjects and grammar necessary for communication in daily situations. Cultural and/or historical readings are included in each lesson to enhance reading strategies such as using context clues. Possible field trips to French businesses will enhance the use of these skills and give students a real world experience.

French II

Grades: 10-12

Credits: 10

Prerequisites: Student must have taken and passed French I

Through mixed media, Level II reviews and builds upon the basic grammar concepts touched upon in Level I. It continues with additional structures, expressions, and vocabulary. Listening and speaking skills will continue to be developed through auditory and verbal activities. Culture will continue to be explored through cultural/historical texts.

**MATHMATICS**

Pre-Algebra (Jr. High)

Grades: 7 - 8

Pre-Algebra is a course that places a strong emphasis on the continued study of integers, order of operations, variables, expressions, and equations. Students will solve and graph equations and inequalities, write and solve proportions, and explore geometry, statistics, and basic graphing.

Algebra I

Grades 8 - 9

10 credits

Algebra is a branch of mathematics which deals with the properties of functions in general and more specifically with linear functions. Students solve expressions, equations, inequalities, systems of equation.

Geometry

Grades: 9- 10 - 11 -12

10 credits

Geometry is taken as the second course in a student’s high school mathematics sequence. Students apply geometric properties to real-world situations. The course also provides students the opportunity to study and analyze three-dimensional objects.

Algebra II

Grades: 10 – 11- 12

Credits: 10

Algebra II is an extension of Algebra I. Students solve expressions, equations, inequalities, systems of equations and inequalities, matrices, graph nonlinear functions, logarithms and basic trigonometry.

Standards Math/ACT

Grades: 11-12

Credits: 10

Standards Math/ACT course will review over topics of Algebra 1, Geometry and Algebra 2. It will focus on topics that are pertinent to the ACT test. It will include ACT practice questions and tests.

**ENGLISH/LANGUAGE ARTS**

Language Arts (Jr. High)

Grade: 7

Students will combine skills in grammar and composition. Students learn to vary sentence structure and to appropriately and consistently use verb tenses. Seventh grade students edit their writing based on their knowledge of grammar and usage, spelling, punctuation, and other conventions of written language. Students are able to select and use different forms of writing for specific purposes such as to inform, persuade or entertain.

Reading (Jr. High)

Grade: 7

Students will study and analyze a variety of classic and contemporary reading selections. They learn to recognize how style, tone and mood contribute to the effect of a text. They also review and refine skills as they comprehend the importance of characterization, conflict, plot, and other concepts that contribute to literature.

Language Arts (Jr. High)

Grade: 8

Students will combined study of grammar and composition. Composition will be stressed as a major component of the course. Students will be expected to effectively communicate ideas through their writing. Grammar will be studied both independently and in conjunction with composition.

Reading (Jr. High)

Grade: 8

Students will focus on developing the reading and analyzing skills needed to be successful readers. During this school year, students will read a variety of grade-level-appropriate classics and contemporary literature, nonfiction, poetry, and plays.

English I

Grade: 9

Credits: 10

This course builds upon fundamental literacy skills. Composition, semantic, and reading skills will be emphasized throughout the course. Major topics and themes include personal narratives, persuasive writing, analytical writing, Animal Farm, Shakespearean literature, and Greek drama and epic literature along with other various genres.

English II

Grade: 10

Credits: 10

This course is designed to help students improve writing and reading skills. Composition, semantic, and reading skills will be emphasized throughout the course. Major topics and themes include analytical writing, a review of grammatical usage and mechanics, To Kill a Mockingbird, Fahrenheit 451, Lord of the Flies, along with other various genres.

Fundamentals of Speech & Communication

Grade: 10

Credits: 5

This course introduces the fundamentals of speech and communication. Principals of effective communication and speaking in public will be analyzed and put into practice. Emphasis will be placed on analyzing communication as well as writing, preparing, and presenting various public speeches/performances: demonstrative, informative, persuasive, entertaining, duets, OID, prose (serious and entertainment), poetry, etc.

Creative Writing

Grade 10

Credits: 5

This course is designed for students to express creativity in the form of short stories, poetry, and other various genres. Students will read and analyze published fiction and poetry to learn the craft of creative writing. Editing and revising will take place in a workshop setting as students complete a digital chapterbook of their work.

English III

Grade: 11

Credits: 10

Also known as American Literature, this course is designed to help students improve their writing and reading skills while focusing on various American writings and themes. Students will master composition, semantic and reading skills throughout the course. Persuasive writing, text-dependent writing, and a study of various American literature genres will be the main themes throughout the course along with ACT prep for English, Reading, and Writing.

Journalism: Newspaper

Grades: 11-12

Credits: 10

This class is in charge of the production of The Trojan Times. Students will be responsible for writing articles, layout and graphic design, interviewing, photography, and working with deadlines. Throughout the semester, students will learn about AP writing style, current events, elements of news/journalism, design principles, journalism ethics, etc. Broadcasting and managing social media as well as an online newspaper will also be required of students. This course is also a NSAA sanctioned activity, therefore students will have extra responsibilities outside of class. Students may take this course multiple times with special permission.

Journalism: Yearbook

Grades: 10-11-12

Credits: 10

This class is in charge of the yearly production of the Scribner-Snyder yearbook. Students will be responsible for writing themes/articles, layout and graphic design, interviewing, photography, and working with deadlines. Furthermore, students will be required to sell and design ads for local businesses and seniors. This course is also a NSAA sanctioned activity, therefore students will have extra responsibilities outside of class. Students may take this course multiple times with special permission.

**COMPUTER APPLICATIONS/CODING**

Keyboarding Applications (Jr. High)

Grade: 7

This is an introductory course for keyboarding students. In this curriculum students are required to improve keyboarding skills and in return apply those skills using Microsoft Office tools. Units of study include Word, PowerPoint, Excel, Movie Maker, and Access. Digital safety and citizenship are also emphasized during instruction. During this class instruction the students are taught to use the tools, tabs, and terminology associated with Microsoft Office tools as well as improve not only words per minute but also accuracy. Block coding using Scratch is used to create simple games.

Computer Applications (Jr. High)

Grade: 8

This course continues working on keyboarding skills as well as introducing students to tools available on their laptops and on the web. They work with photo editing websites, online presentation tools, and Adobe Photoshop CS5 and Illustrator. They are taught to evaluate websites based on qualities and validities of the site information. A review of Scratch block coding is also taught in this class and is used to create digital stories. Basic review of Word tools through projects such as“All About Me” posters, creating infographics, and writing website reviews. Critical thinking and problem solving is emphasized throughout the projects completed in this class.

Coding 1

Grade: 9

Credits: 10

This course encourages cooperative learning, computational thinking, problem solving, and higher level thinking skills. Using the Construct 2 program students are responsible for creating games using object coding. Each game requires them to learn programming language and apply that to objects provided by the curriculum. Topics covered in this course include internet safety, copyright, game programming, career topics in computer science, the Game Engineering Cycle, and html5 computer language.

Coding 2 (3-D Gamit)

Grades: 10-11-12

Credits: 10

In this course students are introduced to 3-D game programming using C# computer language. Tools introduced include Blender, VisioStudio, Unity, and GIMP. Students are learning concepts related to game design, communication, collaboration, and creativity. Students will create a working game by the end of the unit. The second portion of the course involves Mobile app creation. They will be introduced to the steps needed to create and deploy application created using Android Studio. Internet safety and digital citizenship lessons are also taught throughout the year.

Web Design

Grades: 10-11-12

Credits: 10

This class provides instruction in four major areas-Technical skills related to web design and development, computer programming using HTML and CSS languages, and graphic design, Communication and collaboration, Software applications for appropriate and accessible digital and physical tools, and Post-secondary and career options. Lessons also include design theory, color theory, and internet safety. Both online tools and Dreamweaver are used in the programming of the web pages.

**ART COURSES**

Jr. High Art (Jr. High)

Grades: 7-8

These classes build upon and increase student’s knowledge of the elements of art and the principles of design. It will familiarize students with an increased variety of media and techniques. The students will continue exploration of line, shape, form, value, color, texture and space. Students will explore pattern, variety and emphasis. A continued emphasis on critical analysis is accompanied by an increase focus on art from other cultures. Students will complete projects in drawing, painting, clay and design. Students will be required to keep a portfolio of the artwork.

Art 1

Grades: 9-10-11-12

Credits: 10

This class will build upon and increase student’s knowledge of the elements and principles of design and familiarize students with an increased variety of media and techniques. Students will explore relationships between the Elements of Art: line, shape, color, form, value, texture, and space and the Principles of Design: proportion, balance, rhythm, pattern unity, emphasis, and variety. Students will complete projects in drawing, painting, mixed media, clay media, design, proportion and perspective. Students will be required to keep a portfolio of artwork.

Art 2

Grades: 10-11-12

Credits: 10

Pre-requisite Art 1

Students will review the Elements of Art and Principles of Design, the essential fundamentals and apply learned principles into two and three-dimensional media. Students will experience drawing, painting, sculpture, design, clay, textiles, mixed media collages, sculpture and printmaking. Students will explore pattern, variety and emphasis through the study of various cultures of people. Students will experience the study of various artworks through visual slides and art prints. Students will be required to keep a portfolio of artwork.

Art 3-4

Grades: 11-12

Credits: 10

Pre-requisite Art 1-2

Students will continue exploring theory and ideas related to individual interests. Media using 2-dimensional and 3-dimensional concepts will be encouraged. Students will keep in mind the principles of design as well as the elements. A study of the masters will help students develop critical thinking skills, understand art, develop new insights, refine research skills and learn how to interpret many works of art. Students will be challenged to broaden individual, technical, and creative skills. Students will explore 20th Century artists through evaluation and critiques of visual slides. Each quarter students may be required to complete a study on an artist of his/her choice and prepare a report in written format. Students may also be required to create artwork in the style of an artist. Students will be required to keep a portfolio of artwork.

**AGRICULTURE COURSES**

Jr. High Ag (Jr. High)

Grades: 7-8

The objective of this course is to give junior high students an idea of what agricultural education encompasses. Some of the topics that may be covered include: the livestock industry, safety, ethical treatment of animals, agricultural history, soil, plants, natural resources, food science, the National FFA Organization, and parliamentary procedure.

Introduction to Ag

Grades: 9

Credits: 10

The objective of this course is to become familiar with careers in agriculture, record keeping, and the National FFA Organization history and organization. In addition, general agricultural topics will be covered including: natural resources (air and water quality, forest/wildlife management, and aquaculture), plant science, food science, and animal science (animal anatomy, reproduction, and management).

Woods and Construction

Grade: 10-11-12

Credits: 10

The objective of this course is to become familiar with proper procedures for use and care of woodworking tools. Topics of discussion include using the wood shop safely, project planning (sketching and drawing, measurement, developing a bill of materials), hand wood working, and power tools. There will be assigned projects using both hand and power tools; and at the end of the year there is time for a project of the students choice. Please be aware that if a student would like to take a project home, they are responsible for covering the cost of materials or provide their own materials.

Animal Science

Grade: 10-11-12

Credits: 5

Animal Science is the discussion of the livestock industry (the importance, career opportunities, and safety), feeding livestock (digestive system, feed nutrients, balancing rations), animal breeding (genetics, reproduction, biotechnology) and livestock evaluation.

Food Science

Grade: 10-11-12

Credits: 5

Food Science will concentrate on the food industry and how food gets from the producer to the consumer. Topics to be covered include applying principles of science used in the food industry, selection and processing of food products, food safety and management, food-borne illnesses, essential nutrients, dietary guidelines, and careers in the food industry.

Agribusiness

Grade: 10-11-12

Credits: 5

Agribusiness will begin with focus on character, ethics and goal setting. A discussion of employment and interview skills will lead into developing a resume and cover letter. In addition, we will discuss personal finance/budgeting/networth, insurance, types of agribusinesses, and the importance of agribusinesses.

Plant Science

Grade: 10-11-12

Credits: 5

Plant Science is a course designated to learning about how plants grow. Topics to be covered include careers in the industry, the plant kingdom, plant structure, water, temperature, nutrients, light, plant propagation, and genetic engineering.

Natural Resources

Grade: 10-11-12

Credits: 5

The objective of this course is to define natural resources; discuss careers; understand basic ecology (population, communities, ecosystems); discuss resources (air, water, land, renewable vs. non-renewable); and understand conservation and management of natural resources including soil, wildlife, and energy.

Agricultural Mechanics

Grades: 11-12

Credits: 10

The first objective of this course is to become familiar with the steps and procedures to properly use MIG (GMAW), ARC, and O/A welding equipment. This will include safety, use of power tools, metal preparation and specific procedures for each welding type. After all course material is covered, students must complete the list of assigned welds using each of the machines. After all welding is complete, the focus of the class turns more toward agricultural mechanics. Here, small engine parts and operations, electrical wiring, and concrete are topics that may be covered.

Advanced Food Science

Grade: 11-12

Credits: 5

This course will focus on the management of different species: beef cattle, swine, horse, poultry, dairy cattle, and sheep/goats. Information including breeds, selection, feeding, diseases, equipment, anatomy, marketing, and waste management will be covered.

Advanced Woods and Construction

Grade: 11-12

Credits: 10

This course is for students who have previously taken Woods and/or Agricultural Mechanics. This will be a project based course where students will use previously learned skills to complete projects of their choice. Please be aware that if a student would like to take a project home, they are responsible for covering the cost of materials or provide their own materials. The primary grades in this class are given based off of work in the shop.