

# **PETTISVILLE HIGH SCHOOL**

## **Curriculum Guide**

**2023-2024**



**HOME OF THE BLACKBIRDS**

## **COURSE OFFERINGS**

### **AGRICULTURE EDUCATION**

The following areas are covered in AGRICULTURE classes as a combination of agriscience, agribusiness and personal development. Classes meet all year. These include FFA membership and Supervised Agriculture Experience (SAE) programs.

1. Agricultural Safety
2. Research Technology
3. Environmental Science
4. Business Technology
5. Plant and Animal Science
6. Mechanical Science
7. Personal Development
8. Food Science
9. Biotechnology
10. Marketing and Sales
11. Merchandise Handling
12. Employability Skills
13. Crop & Animal Production
14. Entrepreneurship

#### **AGRICULTURE, FOOD AND NATURAL RESOURCES (1.00 credit) #130**

(1.25 credits, with .50 counting toward science graduation requirement) – This course builds on the 8<sup>th</sup> grade introduction to Agricultural and Environmental Systems industry. Students will study many parts of the Agricultural and Environmental Systems career fields. They will examine principles of food science, natural resource management, animal science & management, plant & horticultural science, lab (shop) technology and bioscience. Students will examine the FFA organization and Supervised Agricultural Experience programs. Throughout the course, students will develop communication, leadership and business skills essential to the agriculture industry. (Grade 9)

#### **ANIMAL AND PLANT SCIENCE (1.00 credit) #133**

(1.25 credits, with .50 counting toward science graduation requirement) – [Prerequisite: Agriculture, Food and Natural Resources or approval of the instructor] Students will apply knowledge of animal and plant science to the agriculture industry. They will expand on the value of production animals relative to the agricultural marketplace. Students will engage in animal classification and selection, body systems, along with animal welfare and behavior in relation to the production of animals. Students will learn principles of plant anatomy and physiology, and the role of nutrition, deficiencies and growing environment on plant production. Students will examine and be part of the FFA organization and have Supervised Agricultural Experience programs. Throughout the course, students will develop communication, leadership and business skills essential to the agriculture industry. (Grade 10)

#### **AGRONOMIC and ANIMAL SYSTEMS (1.00 credit) #142**

(1.25 credits, with .50 counting toward science graduation requirement) – [Prerequisite: Agriculture, Food and Natural Resources, and Animal and Plant Science or approval of the instructor] Adds depth to the Animal and Plant Systems course while focusing on pest management, nutrition, anatomy and physiology of animals and plants, the production of crops, advanced mechanics, leadership activities, marketing and production of plants and animals. Students will be part of the FFA organization and have Supervised Agricultural Experience programs. (Grade 11)

**MECHANICAL PRINCIPLES (1.00 CREDIT) #136**

This class is for Junior and Senior students only who are in other Ag classes, or have permission from the instructor, and have passed and used the safety rules established for our shop. Students will engage in the mechanical principles utilized in agriculture systems. They will learn electrical theory, design, wiring, hydraulic and pneumatic theory, along with metallurgy in relation to hot and cold metals. Students will identify, diagnose, and maintain small air-cooled engines. Throughout the course, students will learn critical components of site and personal safety as well as communication and leadership skills through FFA and SAE expectations. (Grades 11 & 12)

**BUSINESS MANAGEMENT for AGRICULTURAL and ENVIRONMENTAL SYSTEMS** (1.00 credit from class) **#143 and AGRICULTURAL and ENVIRONMENTAL SYSTEMS CAPSTONE** (2.00 credit from job placement) **#144** [Prerequisite: other Agriculture classes or approval of the instructor – all non-ag students must meet with the instructor for acceptance] This program concentrates on owning and/or working for a business. Business tours and talks are included. Job placement is available for part of the school day in agricultural related businesses. All students in Business Management for Agricultural and Environmental Systems are also in Agricultural and Environmental Systems Capstone unless they opt out after the first nine weeks. Placement of 450 hours will earn 2 credits, or 225 hours will earn 1 credit. Students who leave school early are expected to have one study hall, and will be released from school for no more than four periods. (Grade 12)

**SCIENCE & TECHNOLOGY OF FOOD** - 1.0 credits – 1 year – 1 period Grades 10, 11, 12

**Prerequisite:** AFNR

Students will examine the research, marketing, processing and packaging techniques applied to the development of food products. Learners will examine nutrient content and their chemical makeup, while applying principles of chemistry to the development of food products. They will examine and implement food safety, sanitation, and quality assurance protocols. Government regulations and food legislation will be examined and the implications to food science and technology will be identified.

**INTRODUCTION TO TECHNOLOGY** - .50 credit - 1 semester - Grades 9-12

This is an introductory course that will focus on developing basic technology skills. Students will have the opportunity to learn new skills by completing project based assignments. This course is designed to engage students in exploring and deepening their understanding of “big ideas” regarding technology. Students will develop an understanding of the influence of technology.

**GREENHOUSE MANAGEMENT** - 1.25 credit – 1 year - Grades 9-12

Students in the greenhouse management class are responsible for planning, growing the flowers and bedding plants for the greenhouse. The course will teach principles of science, engineering and business used in a commercial nursery or greenhouse facility. Management of soil/media, water and nutrient distribution, lighting, ventilation and temperature, and pests will be learned and applied. Students will demonstrate knowledge of propagation methods, plant health, nutrition, and growth stimulation. Students will develop successful business, communication, marketing and sales strategies for use in the greenhouse and nursery industries.

***Each student is expected to develop a Supervised Agriculture Experience (SAE) program, which accounts for the extra .25 credits. FFA membership and participation is mandatory to meet this course's requirements.***

## **ANIMAL & PLANT BIOTECHNOLOGY** - 1.00 credit - 1 year - Grades 11,12

**Prerequisite:** AFNR, Animal/Plant Science

Students will apply scientific knowledge to plant and animal research and product development. Students will apply genetic principles to determine genotypes and phenotypes. Students will describe the parts and functions of animal and plant cells and their importance in biochemistry. This course will provide students with an overall view of the role of science in progressing the agricultural industry through animal and plant sciences. Field trips, projects, laboratories and activities will enable students to develop communication, leadership, and business management skills while learning biotechnology concepts.

## **ART**

**Visual Art** (1 credit) #501 – [Prerequisite: None]

This course is an exploration of the visual arts. Students will create two- and three-dimensional art using a variety of media and techniques. Students will also develop the ability to generate personal artistic concepts, problem solve, respond to works of art, and make connections between visual art and everyday life.

**Intermediate Visual Art** (1.00 credit) #502 – [Prerequisite: Visual Art]

This course is a continued exploration of the visual arts. Students will further explore two- and three-dimensional art using various media and techniques and begin to select and utilize the art media and processes best suited for their individual artistic ideas. Students will continue to develop the ability to generate personal artistic concepts, problem solve, respond to works of art and make connections between visual art and everyday life.

**Advanced Visual Art** (1.00 credit) #504 – [Prerequisite: Visual Art and Intermediate Visual Art]

This course can be taken up to two times by students during their junior and/or senior years. To enroll in this course a student must have earned a grade of B or higher in Intermediate Art. This course is for accomplished art students to advance their artistic skills, further a personalized direction in artmaking, and develop a portfolio of artwork. Students will explore their own artistic concepts while developing their skills with various art materials and techniques. Students will continue to generate personal artistic concepts, problem solve, respond to works of art, and make connections between visual art and the world around them.

**ART & DESIGN** (.50 credit) #508 – [Prerequisite: None] Students will explore the fields of Visual Art and Design by creating work in both traditional and digital media. The elements of art and principles of design will be applied in the creation of two- and three-dimensional works of art (Semester).

**Photography** (.50 credit) #Needs a Number – [Prerequisite: None]

This course is a practical introduction to photography as a means of artistic expression and visual communication. Students will explore the roots of modern photographic processes and create their own artwork using a digital SLR camera and Adobe software. Students will learn how to operate their cameras, capture and compose images, and process those files digitally to produce high quality photographs. A digital SLR camera is required for this course, if purchasing a camera is a barrier to enrolling in Photography please contact the Counselor or Art Teacher (Semester).

# **ENGLISH**

## **ENGLISH 9 (1.00 credit) #200**

This course is designed to refine composition and comprehension skills and develop critical thinking skills. Writing projects will include creative, narrative, interpretive, persuasive, and research writing. Literature will include poetry, short stories, drama, non-fiction, and novels. In addition, the course will include an introduction to speech and group problem solving.

## **ENGLISH 10 (1.00 credit) #202**

This course includes a thematic study of various genres of literature with an emphasis on interpretation and the practice of academic and technical writing techniques.

## **ENGLISH 11 (College Prep) (1.00 credit) #208**

The emphasis of this course is on preparing students for the writing, thinking, and reading skills expected at the college level. Students will expand their critical thought by exploring, analyzing, and critiquing a wide variety of literature. Furthermore, the class will strongly focus on expanding the students' understanding of writing genres as well as improving their writing skills to prepare them for college level composition.

## **HONORS ENGLISH 11 (1.00 credit) #204 [Prerequisite: at least a C average in English 10]**

This course will provide a survey of American literature with a focus on critical analysis similar to that found in the college setting. Students will be introduced to critical lenses which they will then apply to the various texts read in class. Students will write analytical essays throughout the course of the year with a cumulating research paper. Students may choose to take the AP Literature test at the end of the course.

## **ENGLISH 12 (College Prep) (1.00 credit) #209**

The emphasis of this course is to perfect the students writing ability with a focus on research writing. Students will also solidify their critical thinking skills by analyzing and critiquing a wide range of literature. Both areas combined will force the student into college preparedness.

## **HONORS ENGLISH 12 (1.00 credit) #206 [Prerequisite: at least a C average in Honors English 11]**

A rigorous course, Honors 12 will mimic the college classroom. The students will be exposed to reading, thinking, and writing activities that will challenge them in a similar manner that their college course will. Students will be analyzing and critiquing world literature to hone their critical thinking skills. Students will write from several different genres with a heavy focus on critical analysis and research. Students may choose to take the AP Literature test at the end of the course.

## **SPEECH (.50 credit) #210**

The course will emphasize preparing and delivering different kinds of speeches. An overview of other communication areas such as drama, oral interpretation of literature, interpersonal communication, and group problem solving will be introduced. (Semester) **Does NOT count towards the four English credits required for graduation.**

**CREATIVE WRITING (.50 credit) #215** (This class is limited to 15 students)

The goal of this course is to develop creative writing skill, with emphasis on writing poetry, short stories, and an extended work. By the end of the semester, students will finalize and publish a novella, develop a portfolio, and submit writing to contests as available. (Grades 11-12) (Semester) **Does NOT count towards the four English credits required for graduation.**

**VISUAL COMMUNICATIONS (.50 credit) # 218**

This course will focus on visual communication skills and include a substantial introduction to American Sign Language. This class will also help students learn basic non-verbal cues to use in various communication settings. (Grades 11-12) (Semester) **Does NOT count towards the four English credits required for graduation.**

**JOURNALISM (1.00 credit) #220** [Prerequisite: application and approval of the instructor]

This course aims to teach the student the fundamentals of good news collecting and writing. The newspaper and yearbook are projects of this class. (Grades 11-12) **Does NOT count towards the four English credits required for graduation.**

## **FAMILY AND CONSUMER SCIENCES**

**PERSONAL FINANCIAL MANAGEMENT (.50 credit) #160**

Students will develop personal financial plans for individual personal well-being. Throughout the course, students will develop financial literacy skills to provide a basis for responsible citizenship and career success. Additional topics will include analyzing services from financial institutions, consumer protection, investing, and risk management. (Grades 11-12) (Semester)

**ADULTING 101 (.50 credit) #164**

Students will learn how to become an active community member and citizen. An emphasis will be placed on hands-on learning, leadership training and team-building opportunities. Additional topics will include public policy issues, community and global engagement. (Grades 11-12) (Semester)

**GLOBAL FOODS (.50 credit) #170**

Students will compare international cuisines, ingredients and preferred cooking methods of various cultures. The influence of traditions and regional and cultural perspectives on food choices and culinary practices will be emphasized. Students will examine the issues and conditions that affect the availability and quality of food in the global market, and apply advanced cooking techniques, including the use of specialty and advanced equipment in the preparation of food dishes. (Grades 11-12) (Semester)

**CULINARY FUNDAMENTALS (.50 credit) #**

Students will apply fundamental culinary techniques, such as knife handling skills and the recognition, selection and proper use of tools and equipment. An emphasis will be placed on mise en place, the management of time, ingredients, and equipment. Students will apply standard recipe conversions using proper scaling and measurement techniques.

**INTERIOR DESIGN, FURNISHINGS, AND MANAGEMENT (.50 credit) #173**

Students will examine design principles used in home interiors. Important topics will include the selection and organization of home furnishings, plus flooring choices and wall coverings in living spaces. Special design details will be given to kitchens and other rooms which are used daily. Students will examine floor plans, homes for sale in the surrounding area, and rental properties. The importance of managing and maintaining a home will be explained, discussed, and researched. (Grades 10-12) (Semester)

#### **CHILD DEVELOPMENT (.50 credit) #175**

Students will study the principles of child growth, development and behavior. An emphasis will be placed on the cognitive development of a child and sensory and motor skills. Additional topics will include childhood diseases, immunizations, theories of development, learning styles and evaluating childcare services. (Grades 10-12) (Semester)

#### **TEXTILE DESIGN & CONSTRUCTION (.50 credit) #178**

Students will develop new and advanced sewing skills by constructing clothing projects as well as making decorative and practical items for the home using interior design knowledge, skills and techniques. Students will study the visual appearance of fabric and fashion design. Students will identify, analyze and apply production processes and techniques to textiles. Additional topics will include the maintenance and alterations of textiles products, including home interior accessories and garments. Students may be required to purchase materials such as fabric for certain projects. (Grades 9-12) (Semester)

## **FOREIGN LANGUAGE**

#### **SPANISH 1 (1.00 credit) #510**

Spanish I is an introduction to the Spanish language. The course focuses on building a foundation in all four language skills: listening comprehension, speaking, reading comprehension, and writing. Students will be introduced to the geography and elements of culture in the Spanish-speaking world through the use of pictures, PowerPoint presentations, videos, and artifacts. Recommended for grades 9 and 10.

#### **SPANISH 2 (1.00 credit) #512**

The second year continues with the four learning skills and an emphasis on grammar. The purpose of this year is to build the grammatical base necessary to be able to read and speak with understanding. The geography, history and culture are expanded from the first year and presented in both Spanish and English. Recommended to be taken the year following Spanish 1. Students should have at least a C average in Spanish 1.

#### **SPANISH 3 (1.00 credit) #514**

The third year builds on the grammatical base established in year two. The grammar is taught in more detail to make the students more comfortable with the information so that it will flow in both spoken and written use of the language. The diversity of the Hispanic world is highlighted through selected readings, art, music, television, and other materials. Recommended to be taken the year following Spanish 2. Students should have at least a C average in Spanish 2.

#### **SPANISH 4 (1.00 credit) #516**

The fourth year deepens the students' understanding of the language and allows the students to begin to internalize the material. This will allow the students to better express themselves in both spoken and written

language. We will continue to explore the diversity of the Spanish-speaking world through longer readings and more in-depth studies of literature, history and culture. The goal is to have the students use the language to learn and report about topics of current events, history, economics, customs and practices of the Spanish-speaking world. It is recommended to be taken the year following Spanish 3. Students should have at least a C+ average in Spanish 3.

## **HEALTH AND PHYSICAL EDUCATION**

### **HEALTH (.50 credit) #301**

Health will provide useful information in hopes of developing healthy mental, physical, and social choices. This will be accomplished by studying such topics as nutrition, self-esteem, decision-making, relationships with others, and how these affect a person's overall health. (Semester)

### **PHYSICAL EDUCATION 1 (.25 credit) #302**

In addition to focusing on good sportsmanship, students are given the opportunity to be successful indoors and outdoors in a variety of activities (leisure & competitive). The class is also designed to improve each student's coordination, flexibility and cardiovascular endurance in hopes of seeing and feeling the benefits of leading an active lifestyle. (Semester)

### **PHYSICAL EDUCATION 2 (.25 credit) #305**

In this course the student has additional responsibility for learning and helping others learn life-time activities. Students are also expected to take more initiative for their own personal wellness. (Semester)

### **COMPETITIVE SPORTS (.5 credit) # Prerequisites; HS PE 1 & HS PE 2**

Taking the sports you know to the next level. This course is for competitive students who will work hard during activities and have a desire to learn and understand life-long activities better. Proper attitude, behavior, and good sportsmanship is expected throughout the course. Understanding game history, rules, regulations, procedures, scoring and terminology. Majority of class time will be spent playing the sport or activity. Activity set-up, sport terminology, sport history, and videos will also be a part of the class. Possible sports and activities covered would include: badminton, volleyball, basketball, soccer, flag football, handball, pickleball, tennis, yard games (corn hole, Kan Jam, ladder golf, etc.), weight training, aerobics/fitness, line dancing, etc. History of the sport, scoring, and sport terminology quizzes and tests will also be a part of the course.



# **MATHEMATICS**

To help students plan, below are three possible course sequences:

	Sequence 1	Sequence 2	Sequence 3
Grade 8			Algebra 1
Grade 9	Algebra 1	Algebra 1	Geometry
Grade 10	Geometry	Geometry	Algebra 2
Grade 11	Algebra 2	Algebra 2	Advanced Math
Grade 12	Business Math	Advanced Math	Calculus

**ALGEBRA 1** (1.00 credit) #406 [Interested 8<sup>th</sup> graders must have approval of the high school principal]

Algebra 1 is the systematic study of operations and the solving of equations. Two objectives of Algebra 1 are: 1) To develop the fundamentals in elementary algebra needed to continue in any math related field, and 2) to help pupils discover whether or not they have abilities and interests in the field of mathematics.

**GEOMETRY** (1.00 credit) #408 - [Prerequisite: Algebra 1]

Objectives of Geometry are: 1) The development and discovery of important facts concerning points, lines, planes, space, and congruence of figures, and 2) the structure of this course is designed so that reasoning can be developed in an organized, logical pattern. Definitions and postulates are given and everything else is built upon these basic ideas.

**ALGEBRA 2** (1.00 credit) #410 - [Prerequisite: Algebra 1, Geometry]

Algebra 2 is a continuation of Algebra 1, developing new and more difficult concepts of algebra. Some of the areas of study are trigonometry, logarithms, probability theory, complex numbers, and conic sections. This course should seriously be considered if planning on further training after high school. Passing this course is required to attend a state university remedial free.

**BUSINESS MATH** (1.00 credit) #414

The primary objective of this class is to prepare students for real world math situations through practical applications. Students will calculate wages, deductions, taxes, and insurance. Other areas of focus will be loans, checking and saving accounts, mortgages, budgets, markups and discounting, and solving practical business problems.

**ADVANCED MATH** (1.00 credit) #412 - [Prerequisite: Algebra 1, Geometry, and Algebra 2]

The primary objective of this course is to prepare the student to take college mathematics. This course deals with the study of functions, analytic geometry, trigonometry, equation solving and probability.

**CALCULUS** (1.00 credit) #415 - [Prerequisite: Algebra 1, Geometry, Algebra 2, and Advanced Math]

Calculus is explored through the interpretation of graphs and tables as well as analytical methods. The use of technology is integrated to provide a balanced approach of calculus that involves algebraic, numerical, graphical, verbal, and written methods. (**This course potentially might not be taught by a Pettisville teacher**)

**ACCOUNTING CCP (College Credit Plus)** (1.0 credit) #??? - [Prerequisite: All CCP guidance/instruction/paperwork/deadlines from Miss Audet. All requirements from the University of Toledo]

**Semester 1: Financial Accounting**

This course will focus on the journal entries and financial statements that are presented to those outside of a company. Students will learn how to prepare basic financial statements as well as perform different ratio analysis with them. This course is worth 3 credits through the University of Toledo.

**Semester 2: Managerial Accounting**

This course will focus on journal entries and use of financial statements for decision making within a company. Students will learn different inventory accounting techniques as well as how those affect the tax liabilities for a company. This course is worth 3 credits through the University of Toledo.

## **MUSIC**

**BAND** (1 credit) #524

For students in grades 9-12 who have had prior music experience. This course will involve the rehearsal and public performance of various types of music. Performance attendance is mandatory. Special ensembles may be formed from the larger group. Some travel and expenses involved. Some out of school rehearsals may be called.

**JAZZ BAND** (.50 credit) #525 - [Co-requisite: Band]

For students already enrolled in band who have auditioned and been accepted by the instructor. The meeting time for this course is considered co-curricular and is typically twice weekly prior to school starting. The Jazz Band incorporates a wide variety of musical genres outside of the typical band repertoire. Jazz band encourages broader musical listening and expands the student's abilities in performance and knowledge of music. This course includes mandatory performances and rehearsals that may be called in addition to the regular schedule. Some travel expenses may be incurred. Eligible instruments: Drum set, Piano, Guitar, Bass Guitar, Trumpet, Trombone, Alto Sax, Tenor Sax, Bari Sax, and any other instrument also approved by the instructor.

**CHOIR** (1 credit) #520

Choir is open to students in grades 9-12. The goals for this course include learning musicianship, i.e. tone production, diction, phrasing, dynamics, etc.; gaining an appreciation for the singing voice; singing different styles of music; learning how to get along with each other; being representatives of the school in our community. Attendance at performances is required. Additional expenses, travel, and out of school programs may be involved.

**NOTEWORTHY** (.50 credit) #521 - [Co-requisite: Choir]

Noteworthy is select choir of 25-30 voices. Students in grades 9-12 who are enrolled in choir are eligible to audition for this group. Noteworthy rehearses two mornings per week before school. This ensemble is performance-based. Throughout the school year, Noteworthy performs frequently in the immediate and broader community.

**THEATRE** (1.00 credit) #522

This course will introduce students to the theatrical arts. Areas of focus will include basic principles of acting, creativity, collaboration, and theatre design and tech. Students will gain hands-on experience in set and prop design, construction, and dressing, by working on the productions of the fall play and 5/6 musical (semester 1) and the spring musical (semester 2). There will also be opportunities to view theatre performances. (Grades 9-12)

**MUSIC PRODUCTION** (.50 credit) #527 - [Prerequisite: Enrolled in Band and/or Choir]

Music Production is a course in the realm of contemporary music and audio education. Students will learn the process of recording, engineering, promotion and production of live and recorded music. Some of the things the students will do is educate themselves on best practices in the field of music production, learn the different social media and music platforms into which produce and promote music, and familiarize themselves with different music technologies that have been put into practice in the last 20 years. In addition, students will learn techniques on how to record musicians and create arrangements, as well as how to keep track and plan the financial status of a working freelance musician and producer. (Grades 10-12) (Semester)

**GUITARS** (.50 credit) #528 - [Prerequisite: Enrolled in Band and/or Choir]

This course is designed for students looking for a guitar experience. Students will receive guidance and direction in solving problems related to playing the guitar at a beginning level and will learn many of the different styles, skills and techniques required to become a successful guitarist. Areas of concentration include: correct posture, note reading, aural skills, flat-picking, singing songs, rhythmic patterns, chord study, finger-picking styles, musical forms, improvisation and performing experiences. (Grades 10-12) (Semester)

**CLASS VOICE** (.50 credit) - [Co-requisite: Enrolled in Choir and/or Band]

The purpose of this course is to introduce and explore the concepts of classical vocal technique (posture, breathing, resonance, tone production and placement, vocal use, diction, and expression) and performance skills in order to develop each student's unique vocal talent within the context of a group setting through semi-private vocal instruction. Students enrolled in Class Voice will develop a basic understanding of the physiology of the vocal structure (breath, laryngeal structure, resonance). They will develop performance skills, gain confidence, and improve their stage presence through daily practice and group and individualized instruction during class periods. This course is designed for and will be tailored to all levels of vocal development. (Grades 9-12) (Semester I)

## **SCIENCE**

\* All students must have three science credits, including one credit of an advanced inquiry-based lab experience. To help students plan, below are three of the many possible course sequences:

Sequence 1

Sequence 2

Sequence 3

Grade 9	Physical Science	Physical Science	Physical Science and <b>Agriculture, Food and Natural Resources *</b>
Grade 10	Biology	Biology	Biology and <b>Animal &amp; Plant Science *</b>
Grade 11	Environmental Science or	Chemistry, Environmental Science, Anatomy & Physiology or Physics	Chemistry, Environmental Science, or Anatomy and Physiology and/or <b>Agronomic and Animal Systems.</b> *
Grade 12	Environmental Science (scheduled every other year)	Chemistry, Environmental Science, Anatomy & Physiology or Physics	Chemistry, Environmental Science, Anatomy & Physiology or Physics

\* **Agriculture, Food and Natural Resources (.50), Animal and Plant Science (.50), Agronomic and Animal Systems (.50) can also be used to acquire additional inquiry-based lab experience credits.**

**PHYSICAL SCIENCE (1.00 credit) #442**

Physical science is a class that is an introduction to physics and chemistry. Topics covered are the study of matter, energy and waves, forces and motion, and the universe. The use of a scientific calculator, metric conversions, and math skills needed for college preparatory classes are included. **All freshmen are required to take this course.**

**BIOLOGY (1.00 credit) #448**

Biology is the study of living organisms and systems. Topics include cells, evolution, heredity, and diversity and interdependence of life. Sophomores and any other students in grades 10-12 may register for biology if they have successfully completed Physical Science. Biology is a laboratory science. Biology is for students preparing for college and is a must for any student entering a health-related field. **A biological science credit is necessary for graduation.**

**INQUIRY, RESEARCH, AND DESIGN (0.50 credit/semester) #455**

In a guided independent setting, students will conduct experiments or design prototypes to test. This lab-based class will allow students the opportunity to learn to use advanced science lab tools / collection techniques and then learn how to complete data analysis and draw conclusions. At the end of the semester students will select one project they completed during the semester to create a visual summary of the project in the form of a research poster and/or slide show, and give an oral presentation of their project. Students who complete the course during semester 1 will have the option to participate in several science fair competitions during the second semester. Can be taken in semester 1 and/or semester 2. Students will earn a quarter credit per semester. Two successful years of this course will earn a full advanced inquiry-based science credit.

**ENVIRONMENTAL SCIENCE (1.00 credit) #446**

Environmental Science is the study of the relationship between living things and their environment. Topics include food chains, webs, and pyramids within ecosystems, predator-prey relationships, carbon, water, and

nitrogen cycles, renewable and nonrenewable resources, and the impact of humans on their environment. This course is offered alternating years with the Anatomy and Physiology course. (Grades 11-12).

#### **ANATOMY AND PHYSIOLOGY (1.00 credit) #449**

Anatomy and Physiology is the study of the structure and function of the major systems of human biology. Anatomy and Physiology is a laboratory science. Laboratory activities involve the dissection of a cat or a fetal pig. Students in grades 11 and 12 may register for Anatomy and Physiology if they have successfully completed Biology with a minimum C average. Anatomy and Physiology is for students preparing for college and is a must for any student entering a health-related field. This course is offered alternating years with the Environmental Science course. (Grades 11-12).

#### **CHEMISTRY (1.00 credit) #450**

Chemistry is the study of the structure and composition of matter and the changes it undergoes. Chemistry is a laboratory science, including experiments such as the preparation of gasses, solutions, titrations, and percent composition. Students who have successfully completed Algebra 1 and Physical Science with a C or better, AND have taken or will be taking Algebra 2 may enroll in chemistry. Chemistry is recommended for all college preparatory students. Career choices requiring the study of chemistry include, but are not limited to biology, nursing, pre-med., home economics, medical technology, veterinary medicine, agricultural sciences, dentistry, and science education. This course is offered alternating years with the Physics course. (Grades 11-12).

#### **PHYSICS (1.00 credit) #454**

Physics is a laboratory science studying the forces affecting matter. Laboratory exercises include measurements, analyses of force vectors, mass acceleration, motion, work, calorimetry, waves, lenses, and electricity. Students who have successfully completed Algebra 1, Geometry, Algebra 2, and Physical Science with a C or better may enroll in physics. This course is recommended for all college-bound students especially those interested in a science-related career such as a health field or engineering. This course is offered alternating years with the Chemistry course. (Grades 11-12).

## **SOCIAL STUDIES**

#### **WORLD HISTORY (1.00 credit) #601**

This course examines world events from 1600 to the present. It explores the impact of the democratic and industrial revolutions, the forces that led to world domination by European powers, the wars that changed empires, the ideas that led to independence movements and the effects of global interdependence. The concepts of historical thinking introduced in earlier grades continue to build with students locating and analyzing primary and secondary sources from multiple perspectives to draw conclusions. (Grade 9)

#### **AMERICAN HISTORY (1.00 credit) #603**

This course examines the history of the United States of America from 1877 to the present. The federal republic has withstood challenges to its national security and expanded the rights and roles of its citizens. The episodes of its past have shaped the nature of the country today and prepared it to attend to the challenges of tomorrow. Understanding how these events came to pass and their meaning for today's citizens is the purpose of this

course. The concepts of historical thinking introduced in earlier grades continue to build with students locating and analyzing primary and secondary sources from multiple perspectives to draw conclusions. (Grade 10)

**PSYCHOLOGY 1 (.50 credit) #606**

This course is designed to offer students an opportunity to study the major psychological perspectives, learning and cognition, development and personality theories, mental illness, and treatment. Psychology 1 begins to explore the essential question: *How can Psychology explain human behavior?* (Grades 11-12) (Semester) **Preference in the class will be given to those pursuing an Ohio Honors Diploma. Others will be welcome if space permits.**

**PSYCHOLOGY 2 (.50 credit) #610**

This course is designed to offer students an opportunity to study ways of researching human behavior, the biology of psychology, and how our psychology impacts perception, motivation, and our social behavior. Psychology 2 continues to explore the essential question: *How can Psychology explain human behavior?* Students can be successful in Psychology 2 without taking Psychology 1. (Grades 11-12) (Semester) **Preference in the class will be given to those pursuing an Ohio Honors Diploma. Others will be welcome if space permits.**

**AMERICAN GOVERNMENT/ECONOMICS (1.0 credit) #6071**

A study of the political processes and structures on both the national and state levels. The study includes analyses of governmental functions and relationships among the nations, the branches, and the divisions of our federal systems. The roles, rights, and responsibilities of persons, citizens, and political groups are also examined. (Grade 11-12) (Semester)

**CURRENT EVENTS (.5 credit) #**

This course sets current events within the context of historical developments in an attempt to better understand what might happen moving forward. Students will be informed of world events coming from a diversity of sources on a daily basis. Special emphasis will be placed on recurring dialogue relating to the events in focus. This conversation will be guided by the instructor, but the dialogue is relevant to the interests of the class. The instructor will engage with the students to best understand what they would like to know moving forward.