

Blue Valley Course Descriptions

AGRICULTURAL EDUCATION

Class members are encouraged to participate in FFA, the Career and Technical Student Organization.

Ag Explorations Prerequisite: NONE Credit: 1

Open to 8th grade: An introductory course to the Agricultural Science. Students will learn the basics of shop safety and operation, FFA, animals, plants, and leadership. Students will get to select a nine-week exploratory project that allows them to investigate a topic of their personal interest in agriculture.

Agribusiness Prerequisite: NONE Credit: 1

Recommended for freshmen-seniors: Agribusiness is a course that explores how to plan, manage, and expand a business in an agricultural context. Topics covered during the course will include basic agricultural economic concepts, writing an SAE Grant, researching agricultural issues, agricultural sales, and agricultural business management.

Introduction To Agricultural Mechanics Prerequisite: NONE Credit: 1

Recommended for freshmen-seniors: Introduction to Ag Mechanics is a foundation level course that will teach students about the fundamentals of agricultural mechanics. Students are immersed in hands-on learning dealing with welding, small gas engines, woodworking, drafting, and electricity that focuses upon the form and function of material, machines and tools used in agriculture.

Ag Fabrication Prerequisite: Intro to Ag Mechanics Credit: 1

Recommended for sophomores-seniors: Ag Fabrication is a college level course available for college credit. OSHA Safety Certification will be completed, welding skills and metallurgy will all be covered during the course.

Advanced Agricultural Mechanics Prerequisite: Intro to Ag Mechanics Credit: 1

Recommended for sophomores-seniors: Advanced Ag Mechanics is a course that allows students to apply the technical knowledge gained during the Introduction to Ag Mechanics course. Students will maintain SAE records; develop career readiness skills, and fundamental welding skills. The majority of the semester will be spent working on individual shop projects.

Horticulture (Start Fall Even Years) Prerequisite: NONE Credit: 1

Recommended for freshmen-seniors: Horticulture is a course that explores the science behind the growth of plants and management practices. During the course the following topics will be discussed: SAE development, fall mum management, bramble production and site selection, hydroponic production, poinsettia production management, bedding plant production management, landscape design and maintenance, floriculture, and a nine-week independent research project of student choice.

Plant/Soil Science (Start Fall Odd Years) Prerequisite: NONE Credit: 1

Recommended for freshmen-seniors: Plant and Soil Science is a course, which will include the study of plant anatomy and physiology, classification, and the fundamentals of production and harvesting. Students will learn how to apply scientific knowledge and skills to use plants effectively for agricultural and horticultural production. Students will discover the value of plant production and its impact on the individual, the local, and the global economy.

Applications in Horticulture Prerequisite: Horticulture or Plant/Soil Science Credit: 1

Recommended for sophomores-seniors: Applications in Horticulture is a course that builds on previous learning to have students run the greenhouse and outdoor labs as a business. Students will be responsible for day-to-day chores of these spaces and maintain outdoor landscapes on school grounds.

Animal Science Prerequisite: NONE Credit: 1

Recommended for freshmen-seniors: Animal Science is a course that explores farm animal management practices and the scientific principles we use to make those management decisions. During the course the following broad topics will be discussed: animal nutrition, animal genetics, animal reproduction, and animal health. Over the course of the year poultry will be used as the model species for in-class experiments and hands-on management practicums, but we will discuss all form of domesticated livestock throughout the year.

Advanced Animal Science (Start Fall Even Years) Prerequisite: Animal Science Credit: 1

Recommended for sophomores-seniors: Advanced Animal Science is a course that builds upon the Animal Science course by investigating further into animal reproduction, the nervous system, animal handling facilities, livestock judging, and animal welfare issues.

Veterinary Science (Start Fall Odd Years) Prerequisite: Animal Science Credit: 1

Recommended for sophomores-seniors: Veterinary Science is a course that explores the scientific concepts behind veterinary practice. This will be a college level course that will seek to apply knowledge that had been gained from animal science, biology, and chemistry. Topics covered in the course will include: anatomy and physiology, preparation for the Vet Science CDE, principles of disease, and veterinary surgical procedures.

ART

Art I Prerequisite: NONE Credit: 1

Elective for freshmen-seniors: An exploratory course covering the fundamentals of art. The fundamentals of art will be taught through projects using a variety of medias such as sketching, painting, ceramics, batik, watercolor and printmaking.

Art II-IV Prerequisite: Art I Credit: 1

Elective for sophomores-seniors: The fundamentals of art learned in Art I are explored in greater variety and complexity of projects.

BAND / VOCAL

Band Prerequisite: Previous experience or MS Band Credit: 1

Elective for freshmen-seniors: This class is designed to build the musical skills that were learned and used in middle school. It will help students pursue instrumental music education at a more advanced level and will provide them with an opportunity for social and esthetic enjoyment through music. The band consists of the following components: 1) Marching Band; 2) Pep Band; 3) Concert Band. The students are given the opportunity to participate in small ensembles and solos, but it is not required.

Vocal Music Prerequisite: NONE Credit: 1

Elective for freshmen-seniors: The students will learn the basic fundamentals of singing. It gives the student an opportunity to sing as part of a group and to enjoy and appreciate vocal music. The class will experience

standard concert music, popular music, and singing in ensembles. The opportunity to participate in small ensembles and solos is also given in vocal, but not required.

BUSINESS AND TECHNOLOGY

Class members are encouraged to participate in BPA, the Career and Technical Student Organization.

Keyboarding Prerequisite: NONE Credit: 1

Recommended for 6th grade: This course will provide instruction in developing basic keyboarding skills. Speed, accuracy, and keyboarding techniques will be improved using a keyboarding program. Introductory proofreading and editing will be taught.

Computer Skills Prerequisite: NONE Credit: 1

Recommended for 7th grade: Computer Skills will review the keyboard. The students will study the history of computers. The effective and efficient use of the Internet and Internet research will be taught. They will spend time on the ethical use of computers and social media. Students will research the hardware components needed to make up a computer and what various software packages can accomplish. Employability skills and career requirements will be introduced.

Document Processing Prerequisite: NONE Credit: 1

Recommended for 8th grade: This class will review the keyboard, practice keyboarding techniques, and improve speed and accuracy on the keyboard. Students will develop formatting skills for memorandums, letters, business reports, and tables while they learn introductory word processing skills. The importance of accuracy using proofreading and editing skills will be emphasized.

Applied Business Development (Yearbook) Prerequisite: Computer Applications Credit: 1

Recommended for juniors-seniors: This course brings a variety of business experiences together to develop, produce, and market a real life product(s). In this case, it is a high school yearbook to commemorate the high school experience. Students will use business planning and organizational skills, management, marketing, and teamwork to achieve the goal of producing and selling the product to a consumer. In addition, students will produce programs for school events.

Business Accounting Prerequisite: NONE Credit: .5

Recommended for sophomores-seniors: Business Accounting includes the theory and practice associated with double-entry accounting. Special emphasis is placed on the preparation of the documents necessary to complete the accounting cycle. Topics include: transactions, journals, financial statements, schedules, adjustments/closing entries, accounting cycle, cash control, bank reconciliation, and payroll. College credit is available through MATC.

Financial Accounting Prerequisite: Business Accounting Credit: .5

Recommended for sophomores-seniors: Emphasis on working with financial reporting and analysis, accounting information systems, internal control, depreciation, inventories, current and long-term assets, current and long-term liabilities, and equity for a merchandising business. Commercial and specialized accounting software is used to solve most problems. College credit is available through MATC.

Business Economics Prerequisite: NONE Credit: .5

Recommended for freshmen-seniors: This class introduces the principles of macroeconomics and microeconomics. Topics include scarcity, needs and wants, opportunity cost, cost and benefit analysis,

specialization, allocation of resources, various global economic systems, marketplace competition, relationship between GDP, inflation, and unemployment, national and international economic decisions.

Business Essentials Prerequisite: NONE Credit: .5

Recommended for freshmen-seniors: The students in this class will study the rudimentary principles of finance, marketing, operations, and management of a business. Students will discuss the history of business in the United States and the role of business in a global society. This course helps students prepare to take their place in the world of business and use their knowledge to become wise consumers.

Business Management Prerequisite: NONE Credit: .5

Recommended for freshmen-seniors: This course discusses the nature of management and managers in business. Topics include business communication, management theory, leadership styles, business organization, and environment. The class will discuss the specific management areas of finance, production, marketing, customer service, and human resources.

Computer Applications Prerequisite: Keyboarding Credit: 1

Recommended for freshmen-seniors and required for graduation: Students will learn how to operate a computer and social and ethical responsibility issues related to computers. Students will have experience on two operating systems -- Windows and Macintosh OS. Students will learn the Windows environment and then move into Microsoft Office 2016 using Word, Excel, Access, Outlook, and PowerPoint. The remainder of the class will be devoted to the Macintosh platform learning desktop publishing, image editing, drawing, graphics, and multimedia applications.

Entrepreneurship Prerequisite: NONE Credit: .5

Recommended for freshmen-seniors: The students in this class will study the organization, management, and risk of creating a business or enterprise. Types of business ownership, the relationship between government, business, and consumers will be explained. This course helps students prepare to become an entrepreneur, provides them with the skills needed to realistically evaluate their potential as a business owner, and guides them in building a business plan.

Personal Finance/Consumer Economics Prerequisite: NONE Credit: .5

Recommended for freshmen-seniors: This course is an introductory finance course explaining the role of business in our personal lives. Subjects to be covered include job search skills, budgeting, consumer decision-making, managing money/credit, housing, transportation, insurance, investment, and retirement costs. The curriculum follows Dave Ramsey's Foundations in Personal Finance.

Web Page Design Course Description: Prerequisite: NONE Credit: 1

Recommended for juniors-seniors: Students will learn how to develop a web page from inception to completion. Students develop a flowcharts and plan the navigation through the site. Students will select fonts, color, and graphics to enhance the web page topic. Design concepts will be taught to present the topic in an attractive manner. Students research web standards and security to protect the integrity of the site. Ethical and legal publication online to ensure copyright and trademark rules will be taught.

ENGLISH / LANGUAGE ARTS

English I Prerequisite: NONE Credit: 1

Required for freshmen: This course uses modern novels and Shakespearean text to examine teen issues and the cultural structures that create them. Through individual and group work, students will learn the basics and

expectations of high-school level discussion. Emphasis will be placed on writing conventions, on-demand writing, and utilizing textual and research-based evidence.

English II Prerequisite: English I Credit: 1

Required for sophomores: English II deals extensively with the idea of quality evidence. Through novels, drama and nonfiction reading, students will examine different types of evidence by evaluating and drawing conclusions. Students will examine and consider bias, primary vs. secondary sources, and the idea of “truth” in different cultures and time periods. The literary themes throughout the year will examine human nature – are people naturally good or bad?

English III Prerequisite: English II Credit: 1

Required for juniors: This class centers around American Literature, examining different characters’ pursuits of the American Dream. Through extensive and detailed novel study, students will focus on characterization and reliable narration. Students will examine novels through a historical lens, understanding and relating novels to the historical period they existed within. The class will also hone students’ persuasive writing skills, focusing on using research and opinion in a well-crafted persuasive essay.

English IV Prerequisite: English III Credit: 1

Required for seniors: English IV asks students to examine the relationship between man and society. By examining novels from different time periods that address various themes, students will relate novels to the real world and draw conclusions that connect characters to themselves and other characters in literary history. Students will regularly construct essays that are informative, persuasive and narrative in nature, focusing on the fine details of writing based on different purposes and goals.

Novel Studies Prerequisite: None Credit: .5

Novel studies focuses itself on close readings of novels across multiple genres. Students enrolled will choose the novels they are interested in, build their own reading schedules, and discuss their readings through discussion that will be led by both teacher and student. Students will be expected to read regularly outside of class, conduct close readings to examine novels for their literary worth, and will work cooperatively in groups.

FAMILY AND CONSUMER SCIENCE

Class members are encouraged to participate in Family Career Community Leaders of America (FCCLA), the Career and Technical Student Organization.

Intro to FACS Prerequisite: NONE Credit: 1

Basic Home Economics Course (open to 8th grade): Members will be introduced to FCCLA. Areas covered include planning and setting goals, effective communication skills, money management skills, balancing life and careers, FACS technology, personal relationships, food and nutrition and preparation of food, housing, child development, and clothing skills.

Nutrition and Wellness Prerequisite: NONE Credit: .5

Recommended for freshmen-seniors: The study of food in our lives gives the opportunity for many aspects of foods and nutrition. Eating well is essential to being well. This class will demonstrate the needed food choices for all students to become nutrition literate. The study of what foods do for us and how to prepare them are all part of the class. Diet analysis, food prep, and food choices for a nutritious lifestyle are taken in consideration for the individual student.

Career and Life Planning Prerequisite: NONE Credit: .5

Recommended for sophomores-seniors: Develop a good working attitude on the job. This class will focus on the student as an individual and allow career development in the job area they may be interested. Career planning, communication, personal skills, job readiness, and independence will be discussed. Activities may include career exploration through career fairs/days, shadow days, and on the job experience.

Career and Community Connections Prerequisite: NONE Credit: .5

Recommended for sophomores-seniors: Students will explore the world of work from a community aspect. An emphasis on leadership, community service and service learning within student planned projects is part of the course. Upperclassman may have a concentration on scholarships.

Apparel and Textiles Prerequisite: NONE Credit: .5

Recommended for freshmen-seniors: Course focuses on consumer and clothing style, sewing skills, use of technology for clothing design, focuses on the students personal need and interests.

Consumer Resource Management Prerequisite: NONE Credit: 1

We all are consumers and will need skills associated with our future. Subjects to be covered include a place to live, making decisions and setting goals, using money/credit effectively, job search skills, workplace success, consumer skills, rights and responsibilities, understanding advertising, eating on a budget and making wise nutrition choices.

Human Development Prerequisite: NONE Credit: 1

Recommended for freshmen-seniors: Study of pre- and post-natal child development. The class includes personal choice, decisions, planning a family, prenatal care, infant and child development, and challenges of parenthood. Real Care Babies and projects with the kindergarten and grade school are also included.

Food Science Prerequisite: NONE Credit: 1

Recommended for freshmen-seniors: Principles of Food Science is designed to help the student learn about the relations among science, food, and nutrition. Basic laws of chemistry, microbiology, and physics are applied to the production, processing, preservation, and packaging of food. Students will explore the characteristics of each component found in food. Students will examine the helpful and harmful effects of microorganisms on the food supply. You will also find out how the complex mixtures in foods are combined and separated.

FOREIGN LANGUAGE -- SPANISH

Spanish I Prerequisite: NONE Credit: 1

Elective for freshmen-seniors: Students develop basic oral and written skills and vocabulary for communication in Spanish. A variety of activities and cultural units supplement the text. (Requires memorization and daily preparation.)

Spanish II Prerequisite: Spanish I Credit: 1

Elective for sophomores-seniors: This course is a continuation of the skills learned in Spanish I, with emphasis on practical conversation, expansion of grammar, vocabulary, and cultural understanding.

MATHEMATICS

All college bound students should enroll in the college preparatory Math program which includes Algebra I, II and Geometry to meet the Qualified Admissions standards.

Consumer Mathematics Prerequisite: NONE Credit: 1

Recommended for freshmen: This course teaches students applications to everyday life skills. It includes budgeting, filling out tax forms, transportation costs, banking, housing, and other life related skills.

Algebra I Prerequisite: NONE Credit: 1

Recommended for freshmen: Students will deepen and extend their understanding of previous algebraic concepts. Topics for this course include linear functions, exponential functions and sequences, quadratic functions, data analysis and modeling while engaged in the mathematical practice standards.

Geometry Prerequisite: Algebra I Credit: 1

Recommended for sophomores-seniors: Topics for this course include definitions, properties, and measurements of geometric figures, properties of parallel lines, rotations, translations, proofs, study of the Pythagorean Theorem, basic constructions, coordinate geometry and trigonometry.

Algebra II Prerequisites: Algebra I, Geometry Credit: 1

Recommended for juniors-seniors: The topics covered in this course will include mathematical operations and graphing and solving systems of equations, linear and quadratic equations and inequalities, polynomial equations, rational equations, sequences and series, trigonometry, probability, complex numbers, exponential and logarithmic functions, use/graph/write equations of conics.

Calculus/Trigonometry Prerequisites: Algebra I, Geometry, Algebra II Credit: 1

Recommended for juniors-seniors: Advanced algebra, geometry, and trigonometry concepts are studied in this course. Basic calculus principles are introduced.

Pre-Calculus (with Trigonometry and Analytic Geometry)
Prerequisites: Algebra I, Geometry, Algebra II Credit: 1

Recommended for seniors or juniors planning to take Calculus during senior year: Emphasis during the fall semester will be on trigonometry and functions. Second semester will cover analytic geometry, limits, and derivatives.

Calculus Prerequisites: Algebra I, Geometry, Algebra II, Pre-Calculus Credit: 1

Recommended for college-bound seniors: Emphasis during the fall semester will be functions, graphs, limits, and the basics of derivatives. Second semester will cover second derivatives, applications of derivatives, addition to integrals and their application.

Math Analysis and Analytic Geometry
Prerequisites: Algebra I, Geometry, Algebra II, Pre-Calculus or Trigonometry Credit: 1

Recommended for college-bound seniors: Emphasis during the first semester will be on analytic geometry. Second semester focuses on applied mathematics with real-world situations. The class is designed to spotlight mathematics as a powerful problem-solving tool.

PHYSICAL EDUCATION

Completed KSHSAA Physical Examinations are required for enrollment in any P.E. course.

Physical Education/Health Prerequisite: NONE Credit: 1

Required for freshmen: Through physical activities the class promotes physical fitness, gross motor skills, game sports, and recreational activities. The class is open to both boys and girls, with emphasis on developing sportsmanship, personality and character growth, and good habits of health and safety through written evaluation of health and human sexuality.

Weight Training I / II Prerequisite: Freshman P.E. Credit: 1

Elective for sophomores-seniors: Apply knowledge of a structured workout plan with free weights in order to increase muscular strength and endurance, increase muscular flexibility and aide in recovery and prevention of athletic injuries. Students will understand the benefits of weight training and a total physical fitness program and how these relate to an enhanced overall quality of life. Students will identify the location and function of the major muscle groups and how to develop these groups. They will increase students' self-image as relates to cosmetic improvements inherent in weight training with emphasis on nutrition.

Fitness for Life Prerequisite: Freshman P.E. Credit: 1

Elective for sophomores-seniors: Apply knowledge of a structured workout plan with free weights in order to increase muscular strength and endurance, increase muscular flexibility and aide in recovery and prevention of athletic injuries. Students will identify the location and function of the major muscle groups and how to develop these groups. Students will understand the benefits of weight training and a total physical fitness program and how these relate to an enhanced overall quality of life. This will increase students' self-image as relates to cosmetic improvements inherent in weight training with emphasis on nutrition.

SCIENCE

Earth Science Prerequisite: NONE Credit 1

Recommended for freshmen: Earth Science is a laboratory-based course designed to interpret and understand the world around us by investigating the geosphere, atmosphere, hydrosphere, and biosphere. Students learn about the composition of the Earth by mapping the Earth's surface, field studies, and understanding rocks and minerals. Students explore the surface processes that shape the landforms and landscapes of the Earth. They also explore the interactions between the atmosphere and hydrosphere in relation to the Earth's weather and climate. Finally, students study earthquakes, volcanoes, and plate tectonics to better understand our ever-changing Earth.

Biology Prerequisite: Earth Science Credit: 1

Recommended for sophomores: Biology is a laboratory-based course that focuses on the process of scientific investigation through the study of living things and the world in which we live. The course is organized by taxonomic classification (Archaea, Bacteria, protists, Fungi, plants, and animals). Students explore the living world by examining the concept of the model organism by its classification, metabolism, and cellular structure, in light of the diversity of form and physiology. Throughout the course, model organisms are used to better understanding genetic, ecological, and evolutionary principles.

Chemistry Prerequisite: Earth Science Credit: 1

Recommended for sophomores-seniors (may be taken concurrently with Biology): Chemistry is a laboratory-based course that will introduce students to the study of the physical world and inorganic chemical principles.

Students first examine the placement of elements into chemical families based on periodic trends. Next they explore states of matter and intermolecular forces. Special attention is given to types of bonding. Students evaluate chemical reactions in light of stoichiometry and dimensional analysis. Special attention is given to acids and bases and oxidation and reduction reactions.

Anatomy and Physiology Prerequisite: Biology Credit: 1

Recommended for juniors-seniors: Anatomy and Physiology is a laboratory-based course that investigates the structure and function of the mammalian body. This course will cover in detail all the major systems of the body along with the impact of diseases and disorders on certain systems. Included in this study are the cellular system, the musculoskeletal system, the circulatory system, the nervous system, the excretory system, the digestive system, the endocrine system, the respiratory system, and reproductive system. Model organisms as well as the human body are used as examples throughout the course.

Applied Statistics and Analysis in Science Prerequisite: 2 years Science Credit: 1

Recommended for juniors-seniors: Applied Statistics and Analysis in Science is a keystone course for seniors who plan careers in science, technology, engineering, or mathematics by showing students scientific applications of mathematics in the disciplines of biology, chemistry, earth science, and physics. Practical real-life applications of the materials studied are emphasized using both case studies and field studies. Students will be required to complete engineering challenges as a component of each unit.

Physics Prerequisite: 2 years Science Credit: 1

Recommended for juniors-seniors: Physics is a lab-based course in which students will be introduced two-dimensional motion based on Newtonian dynamics, circular motion and gravitation, General and Special Relativity, fluid mechanics, thermodynamics, waves, vibrations, light, sound, electricity and circuits, and atomic and subatomic physics. Students will be required to complete several engineering challenges throughout the courses including construction of a life-size catapult, a cardboard and duct tape boat, and a functioning wind turbine model.

College Biology (5 credit hours) Prerequisite: HS Biology & 23 on ACT Science Credit: 1

Recommended for juniors-seniors: This course will enable the student to apply basic biological principles to relevant situations in his or her daily life. The student will apply the scientific process to problem solving and deductive reasoning to analyze and interpret observations. The learning outcomes and competencies meet or exceed the outcomes and competencies specified by the Kansas Core Outcomes Project for this course, as sanctioned by the Kansas Board of Regents.

SOCIAL SCIENCES

Kansas History/Geography Prerequisite: NONE Credit: 1

Required for 7th Grade: The first semester of this course covers the basic landscapes of the state of Kansas and mostly focuses on the history/beginnings of Kansas as a territory and a state. The majority of the course focuses on Kansas in the 19th century, but the 20th century is also addressed. The second semester course focuses on World Geography. In this course, students will learn the 5 Themes of Geography, Location, Place, Region, Movement, and Human-Environment Interaction. With these 5 themes, students will learn to read maps, identify landforms, climate, cultures, weather patterns, and basic economic principles.

U.S. History (Junior High) Prerequisite: NONE Credit: 1

Required for 8th Grade: This course covers a broad timeline of history from the 15th-19th centuries in North America, focusing mostly on the beginnings of the United States pre-Revolutionary War all the way through the time of the Civil War.

Current Events

Prerequisite: NONE

Credit: 1

Recommended for freshmen: This course covers a broad range of subjects in Social Sciences including politics, geography, science, health research, world relations, economics, and other news stories. Students will also learn, recognize, and evaluate significant choices made by individuals, communities, states, and nations that have impacted our lives and futures. Students will also be expected to improve on using appropriate social skills and participate in gestures of proper upstanding citizenship.

World History

Prerequisite: NONE

Credit: 1

Recommended for sophomores: This course helps students gain a historical overview of the world from the beginning of known civilization to the present. It focuses primarily on ancient civilizations, the Renaissance, the Enlightenment, and the Scientific Revolution. The course studies many places and time periods but the majority of content covers European History.

U. S. History

Prerequisite: NONE

Credit: 1

Required of juniors: This course follows the timeline of United States history from the Civil War to present day. Major focuses of this course are the expansion of U.S. territories, laws dealing with slavery, the idea of manifest destiny, imperialism, wars, politics, and economics.

U.S. Government

Prerequisite: U. S. History

Credit: 1

Required for seniors: This course studies the formation of our government, the constitution, laws that govern our everyday living, and the structure of our democratic government. Students will learn what ways they can positively influence their communities and also build on their existing knowledge of what it takes to be an upstanding citizen.

Financial Literacy

Before graduation, students are encouraged to take a course on Financial Literacy. This course is offered online and teaches students the basic responsibilities of proper personal budgeting. This course is intended to help students learn about the dangers of improper financial management and also to encourage proper financial management.