

CCJSHS Course Descriptions

2021-2022

Agriculture

AGRICULTURAL ENTREPRENEURSHIP (IHT) (11-12) Prerequisite: Permission of instructor

Agricultural Entrepreneurship courses focus on the personal skills necessary for success in entrepreneurial ventures in the agricultural industry. Topics include setting goals, assessing and solving problems, evaluating financial progress and success, business planning, information management and evaluation, and recordkeeping.

AGRICULTURAL WELDING (10-12) Prerequisite: Introduction to Agriculture

Agriculture Welding courses provide students with the skills and knowledge that are specifically applicable to the tools and equipment used in the agricultural industry. In learning to apply basic industrial knowledge and skills (engines, power, welding and carpentry, among others), students may explore a broad range of topics, including the operation, mechanics and care of farm tools and machines; the construction and repair of structures integral to farm operations; an introduction or review of electricity and power; and safety procedures.

AGRICULTURAL WELDING II (11-12) Prerequisite: Ag. Welding I

This course provides students with the skills and knowledge that are specifically applicable to the welding industry with advance blueprint reading and welding in the OH, V and H position along with pipe welding and TIG welding that could result in welding certification.

AGRICULTURAL SCIENCE (10-12) Prerequisite: Introduction to Agriculture

This course covers a wide range of agricultural topics, including plant and animal science, production and processing; agricultural mechanics, including tool and machine operation and repair; construction and repair of farm structures; business operations and management; and the careers available in the agricultural industry. They may also include topics such as chemical and soil science, ecology, agricultural marketing and veterinary science.

AGRIBUSINESS (11-12) Prerequisite: Introduction to Agriculture

Agribusiness courses provide students with the information and skills necessary for success in agribusiness and in operating entrepreneurial ventures in the agricultural industry. These courses may cover topics such as economic principles, budgeting, risk management, finance, business law, marketing and promotion strategies, insurance and resource management. Other possible topics include developing a business plan, employee/ employer relations, problem-solving and decision making, commodities and building leadership skills. This course will also incorporate a survey of the careers with the agricultural industry.

CROP & RANGE MANAGEMENT (IHT) (11-12) Prerequisite: Permission of instructor

This course imparts the application and skills needed to bring plant products to market. It may cover a wide variety of topics, including plant production, quality selection and preservation, equipment care and sanitation, government regulations, and marketing and consumer trends. This course may present an overview of product processing or may specialize in specific plant products and challenges related to range and pasture management.

GENERAL HORTICULTURE (10-12) Prerequisite: Introduction to Agriculture

General Horticulture courses expose students to the art and science of growing plants, shrubs, trees, flowers, fruits, and vegetables. In doing so, they cover a wide variety of topics, including greenhouse and nursery operations, soils and media mixtures, fruit and vegetable production, turf/golf course management, interior and exterior plant scaping, irrigation systems, weed and pest control, and floral design.

INTRODUCTION TO AGRICULTURE (9-12)

Introduction to Agriculture courses survey a wide array of topics within the agricultural industry, exposing students to the many and varied types of agriculture and livestock career opportunities and to those in related fields (such as natural resources). These courses serve to introduce students to the agricultural field, providing them an opportunity to identify an area for continued study or to determine that their interest lies elsewhere. They often focus on developing communication skills, business principles, and leadership skills.

PLANT AND SOIL SCIENCE (10-12) Prerequisite: Introduction to Agriculture

Courses expose students to the art and science of growing plants, shrubs, trees, flowers, fruits, agriculture crops and vegetables. In doing so, they cover a wide variety of topics, including greenhouse and nursery operations, soils and media mixtures, soil chemistry, fertility, mineralogy, hydrology, soil conservation, irrigation, fruit and vegetable production, turf/golf course management, interior and exterior plant scaping, irrigation systems, weed and pest control and floral design.

Art

ADVANCED CERAMICS I (10-12) Prerequisite: Introduction to Art, Drawing or Sculpture, Ceramics

During this semester, students will learn to control the type of pottery they create and grow in the skill needed to throw, shape, and design their pieces.

ADVANCED CERAMICS II (10-12) Prerequisite: Introduction to Art, Drawing or Sculpture, Ceramics, Adv. Ceramics I

This semester will give students the chance to explore different types of pottery and determine what type of ceramics they wish to create. Students will have the chance to develop unique surface and glazing techniques. They will also explore pottery as an art form not necessarily used for function. It again, is their opportunity to grow as an artist and craftsman.

ADVANCED DRAWING I (10-12) Prerequisite: Introduction to Art, Drawing

In this class, students will build on the skills learned during their entry level drawing semester. They will explore different mediums like charcoal or ink, and will begin to work with subject matter and compositions that interest them the most.

ADVANCED DRAWING II (10-12) Prerequisite: Introduction to Art, Drawing, Adv. Drawing I

In this class, students will decide what kind of art they would like to create and explore those things. It is their opportunity to grow as an artist.

ADVANCED PAINTING I (10-12) Prerequisite: Introduction to Art, Drawing or Sculpture, Painting

This semester builds on the color skills students have learned in beginning painting. They will explore different subjects and try other mediums such as pastel painting.

ADVANCED PAINTING II (10-12) *Prerequisite: Introduction to Art, Drawing or Sculpture, Painting, Adv. Painting I*

As advanced painters, students will determine the type of painting they wish to explore and the kinds of subjects they wish to try. It is their opportunity to grow as an artist.

ART PORTFOLIO (11-12) *Prerequisite: Permission of instructor*

This is a class designed to allow the student to further explore a subject in visual arts after advanced classes have been taken. It is self-directed with instructor guidance.

CERAMICS (10-12) *Prerequisite: Introduction to Art, Drawing or Sculpture*

This course covers the same topics as Creative Art Comprehensive, but focuses on creating three-dimensional works out of clay and ceramic material. Particular attention is paid to the characteristics of the raw materials, their transformation under heat, and the various methods used to create and finish objects.

CERAMICS II (10-12) *Prerequisite: Introduction to Art, Drawing or Sculpture, Ceramics*

This course covers the same topics as Creative Art Comprehensive, but focuses on creating three-dimensional works out of clay and ceramic material. Particular attention is paid to the characteristics of the raw materials, their transformation under heat, and the various methods used to create and finish objects.

DRAWING (9-12) *Prerequisite: Introduction to Art*

This course covers the same topics as Creative Art Comprehensive, but focuses on drawing. In keeping with this attention on two-dimensional work, students typically work with several media, such as pen and ink, pencil, chalk, and so on.

INTRODUCTION TO ART (9-12)

This course provides students with the knowledge and opportunity to explore art form and to create individual works of art. It may also provide a discussion and exploration of career opportunities in the art world. This course will cover the language, materials, and processes of a particular art form and the design elements and principles supporting a work of art. As students advance and become more adept, the instruction regarding the creative process becomes more refined, and students are encouraged to develop their own artistic styles. This class is a prerequisite for all other high school art classes.

PAINTING (10-12) *Prerequisite: Introduction to Art, Drawing or Sculpture*

This course covers the same topics as Creative Art Comprehensive, but focuses on painting. In keeping with the attention on two-dimensional work, students typically work with several media, such as watercolor, tempera, oils, acrylics, and so on.

PAINTING II (10-12) *Prerequisite: Introduction to Art, Drawing or Sculpture, Painting*

This course covers the same topics as Creative Art Comprehensive, but focuses on painting. In keeping with the attention on two-dimensional work, students typically work with several media, such as watercolor, tempera, oils, acrylics, and so on.

SCULPTURE (9-12) *Prerequisite: Introduction to Art*

This course covers the same topics as Creative Art Comprehensive, but focuses on creating three-dimensional works. Students typically work with several media, such as clay, ceramics, wood, metals, textiles, and so on.

Business/Computer Education

ACCOUNTING (10-12)

This course introduces and expands upon the fundamental accounting principles and procedures used in businesses. Course content typically includes the full accounting cycle, payroll, taxes, debts, depreciation, ledger and journal techniques, and periodic adjustments. Students may learn how to apply standard auditing principles and to prepare budgets and final reports. Calculators, electronic spreadsheets, or other automated tools are used. Advanced topics may include elementary principles of partnership and corporate accounting and the managerial uses of control systems and the accounting process.

APPLIED BUSINESS DEVELOPMENT (IHT) (11-12) Prerequisite: Permission of instructor

In this capstone course, Applied Business Development students will practice skills of planning, organizing, directing and controlling functions of operating a business while assuming the responsibilities and risks involved. Students will develop skills in enterprise development, market analysis and financial preparation. These courses include classroom activities as well as involving further study of the field and discussion regarding real-world experiences and applications that students encounter in owning and managing a business.

BUSINESS COMMUNICATIONS (9-12)

Business Communications courses help students to develop an understanding and appreciation for effective communications in business situations and environments. Emphasis is placed on all phases of communication: speaking, listening, thinking, responding, reading, writing, communicating nonverbally, and utilizing technology for communication. Business communication functions, processes, and applications in the context of business may be practiced through problem-based projects and real-world application.

BUSINESS ECONOMICS (9-12)

Business Economics integrates economic principles (such as free market economy, consumerism, and the role of American government within the economic system) with entrepreneurship/business concepts (such as marketing principles, business law, and risk).

BUSINESS ESSENTIALS (9-12)

This is a core course designed to give students an overview of the business, marketing and finance career cluster occupations. Students will examine current events to determine their impact on business and industry and legal and ethical behavior, acquire knowledge of safe and secure environmental controls to enhance productivity, determine how resources should be managed to achieve company goals, and identify employability and personal skills needed to obtain a career and be successful in the workplace. As students learn about different types of business ownership, they will interpret industry laws and regulations to ensure compliance, identify principles of business management, and analyze business practices to determine ethics and social responsibilities.

BUSINESS MANAGEMENT (9-12)

This course acquaints students with management opportunities and effective human relations. This course provides students with the skills to perform planning, staffing, financing, and controlling functions within a business. In addition, it usually provides a macro-level study of the business world, including business structure and finance, and the interconnections among industry, government, and the global economy. The course may also emphasize problem-based, real-world applications of business concepts and use accounting concepts to formulate, analyze, and evaluate business decisions.

EMERGING TECHNOLOGIES (10-12)

New advances in technology offer promise of more efficiency, convergence of existing technologies, improved productivity and represent progressive development. The degree of impact, status, deployment and economic viability affect future opportunities for society. This course offers opportunity to learn, utilize, and appreciate those impacts in future workplace environments.

ENTREPRENEURSHIP (9-12)

The Entrepreneurship course acquaints students with the knowledge and skills necessary to own and operate their own businesses. Topics from several fields form the course content: economics, marketing principles, human relations and psychology, business and labor law, legal rights and responsibilities of ownership, business and financial planning, finance and accounting, and communication.

PERSONAL FINANCE (11-12)

In this course, students will be provided an understanding of the concepts and principles involved in managing one's personal finances. Topics may include savings and investing, credit insurance, taxes and social security, spending patterns and budget planning, contracts, and consumer protection. This course may also provide an overview of the American economy.

Foreign Language

SPANISH I (9-12)

Designed to introduce students to Spanish language and culture, Spanish I emphasizes basic grammar and syntax, simple vocabulary, and the spoken accent so that students can read, write, speak, and understand the language at a basic level within predictable areas of need, using customary courtesies and conventions. Spanish culture is introduced through the art, literature, customs, and history of Spanish-speaking people.

SPANISH II (10-12) Prerequisite: Spanish I

Spanish II builds upon skills developed in Spanish I, extending students' ability to understand and express themselves in Spanish and increasing their vocabulary. Typically, students learn how to engage in discourse for informative or social purposes, write expressions or passages that show understanding of sentence construction and the rules of grammar, and comprehend the language when spoken slowly. Students usually explore the customs, history, and art forms of Spanish-speaking people to deepen their understanding of the culture(s).

Graphic Design/Journalism

21ST CENTURY JOURNALISM (9-12)

21st Century Journalism promotes the development of the skill set needed today and in the future. Topics include an exploration of the role media and the communications industry has in society, the development of the technical skills related to journalistic writing and interviewing and the ethical and legal issues related to the field.

COMPUTER GRAPHICS (9-12)

Computer Graphics provides students with the opportunity to explore the capability of the computer to produce visual imagery and to apply graphic techniques to various fields, such as advertising, TV/video, and architecture. Typical course topics include modeling, simulation, animation, and image retouching.

DIGITAL MEDIA DESIGN/PRODUCTION (IHT) (11-12) *Prerequisite: Permission of instructor*

Digital Media Design and Production courses teach students the fundamental techniques learned in the Digital Media Technology course through the production of a multimedia project for public presentation. Topics include developing a production schedule, working as a team, utilizing composition principles, and embedding audio, video or other content in digital formats.

DIGITAL MEDIA TECHNOLOGY (9-12)

Digital Media Technology is designed to give students the skills necessary to support and enhance their learning about digital media technology. Topics covered in the course may include Internet research, copyright laws, web publishing, use of digital imagery, electronic forums, news groups, mailing lists, presentation tools, and project planning.

GRAPHIC DESIGN (9-12)

Commercial Graphic Design teaches students to use artistic techniques to effectively communicate ideas and information to business and customer audiences via illustration and other forms of digital or printed media. Topics covered may include concept design, layout, paste-up, and techniques such as engraving, etching, silk screen, lithography, offset, drawing and cartooning, painting, collage and computer graphics.

GRAPHIC DESIGN FUNDAMENTALS (9-12)

Graphic Design Fundamentals provides a basic understanding of the graphic design process. Topics include analyzing the design elements and principles, exploring industry tools, software and equipment and learning composition techniques to develop a quality product.

GRAPHIC DESIGN PROJECT MANAGEMENT (9-12)

This course gives students an opportunity to apply the skills obtained in graphic design classes in a professional workplace environment. Students will work on developing an understanding of project management, budgets, and resources. There is an emphasis on working with others and collaborating on a variety of design projects.

INTERACTIVE MEDIA (9-12)

Interactive Media courses provide students with the knowledge and skills to create, design and produce interactive media products and services. The courses may emphasize the development of digitally generated and/or computer-enhanced media. Course topics may include 3D animation, graphic media, web development and/or virtual reality. Upon completion of these courses, students may be prepared for industry certification.

JOURNALISM/BROADCASTING - WORKPLACE EXP. (10-12)

This course provides students with work experience in a field related to journalism or broadcasting. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace. Students would work on print publications, newspaper and yearbook, as well as website and broadcast productions.

MEDIA AND PUBLIC RELATIONS (9-12)

This course will build skills needed to communicate messages to the public as it relates to topics of concern. Topics will include conflict awareness, reliability of sources, creating publicity materials, public relations campaigns and working with media.

MEDIA TECH. - WORKPLACE EXP. (IHT) (11-12) Prerequisite: Permission of instructor

Media Technology - Workplace Experience courses provide students with work experience in fields related to media technology. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). These courses may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

PHOTO IMAGING (9-12)

Photo Imaging teaches the technical skills needed to produce quality images for use in a variety of applications. Topics include use of equipment, software and techniques to take, edit and manipulate digital images.

WEB PAGE DESIGN (10-12)

This course teaches students how to design websites by introducing them to and refining their knowledge of site planning, page layout, and graphic design. This course may also cover security and privacy issues, copyright infringement, trademarks, and other legal issues relating to the use of the Internet. Students will learn WordPress and the use of other online website resources. Students will also help maintain district website.

WEB/DIGITAL COMMUNICATIONS PROJECT MANAGEMENT (IHT) (11-12) Prerequisite: Permission of instructor

This course provides students with the information and skills necessary for success in managing projects and operation logistical ventures in technology, business and industry. This course covers scheduling of resources (including personnel, budget, timelines, and equipment), utilization of Gantt charts, economic principles within the workplace, and risk management. Other possible topics include developing a business plan, finance, business law, marketing and promotion strategies, insurance employee/employer relations, problem-solving and decision-making, and building leadership skills. This course may also incorporate a survey of the careers with technology and engineering industries.

Industrial Technology

ARCHITECTURAL DRAFTING (10-12) Prerequisite: Intro. to IT

Drafting - Architectural courses introduce students to and help them refine the technical craft of drawing illustrations to represent and/or analyze design specifications, using examples drawn from architectural applications. These courses are intended to help students develop general drafting skills, but place a particular emphasis on interior and exterior residential (and light commercial) design, site orientations, floor plans, electrical plans, design sketches, and presentation drawings. In addition, students may prepare scale models.

DRAFTING (9-12)

Drafting introduces students to the technical craft of drawing illustrations to represent and/or analyze design specifications and then refine the skills necessary for this craft. This course uses exercises from a variety of applications to provide students with the knowledge and experience to develop the ability to perform freehand sketching, lettering, geometric construction and multi-view projections and to produce various types of drawings (working, detail, assembly, schematic, perspective and so on).

DRAFTING/CAD (10-12) Prerequisite: Intro. to IT

Frequently offered as an intermediary step to more advanced drafting courses, CAD Design and Software courses introduce students to the computer-aided drafting systems available in the industry.

INTRODUCTION TO IT (9-12)

An introductory level course designed to instruct students in the basic skills necessary to all occupations in the Construction, Manufacturing, and Transportation areas.

INTRODUCTION TO WELDING (9-12)

Welding courses enable students to gain knowledge of the properties, uses, and applications of various metals, skills in various processes used to join and cut metals (such as oxyacetylene, shielded metal, metal inert gas, and tungsten arc processes), and experience in identifying, selecting, and rating appropriate techniques. Welding courses often include instruction in interpreting blueprints or other types of specifications.

PRODUCTION WELDING (10-12) Prerequisite: Intro. to Welding

A comprehensive course designed to provide students with knowledge and skills in basic welding theories and terminology, to perform Oxy-fuel and Arc Welding activities in the F & H positions, and to perform non-destructive testing activities.

PRODUCTION WELDING 2 (11-12) Prerequisite: Intro. to Welding, Production Welding

An application-level course designed to instruct students in the knowledge and skills needed for solving fabrication problems, to weld joints in the V & OH positions, and perform Plasma cutting.

RESEARCH/DESIGN FOR PRE-CONSTRUCTION (IHT) (11-12) Prerequisite: Permission of instructor

An advanced research and application course covering specific topics in design and pre-construction to include management and “green design” skills.

RESEARCH/DESIGN FOR MANUFACTURING (IHT) (11-12) Prerequisite: Permission of instructor

This course provides students with work experience in fields involving manufacturing, supported by classroom attendance and discussion. Goals are typically set cooperatively by the student, teacher, and employer (although students are not necessarily paid). This course may include classroom activities as well, involving further study of the field or discussion regarding experiences that students encounter in the workplace.

RESIDENTIAL CARPENTRY 1 (10-12) Prerequisite: Intro. to IT

This course will provide students with basic knowledge and skills required for construction of commercial, residential, and institutional structures. This course provides experiences and information (typically including career opportunities and training requirements) regarding construction-related occupations such as carpentry, cabinetmaking, bricklaying, electrical trades, plumbing, concrete masonry, and so on. Students engage in activities such as reading blueprints, preparing building sites, starting foundations, erecting structures, installing utilities, finishing surfaces, and providing maintenance.

RESIDENTIAL CARPENTRY 2 (10-12) Prerequisite: Intro. to IT, Residential Carpentry

An advanced comprehensive course designed to instruct students in skills pertaining to rough construction and finish work.

Language Arts

ENGLISH IV/COMP. I (12) Prerequisite: English I, English I, English III

This course meets the requirements for English IV and College English Composition I as a concurrent credit course as governed by the Kansas Board of Regents.

ENGLISH IV/COMP. II (12) Prerequisite: English I, English I, English III, English IV/Comp. I

This course meets the requirements for English IV and College English Composition II as a concurrent credit course as governed by the Kansas Board of Regents.

ENGLISH I (9)

This class builds upon students' knowledge of grammar, vocabulary, word usage, and the mechanics of writing and usually include the four aspects of language use: reading, writing, speaking and listening. Typically, this course introduces and defines various genres of literature, with writing exercises often linked to reading selections.

ENGLISH II (10) Prerequisite: English I

This course offers a balanced focus on composition and literature. The students learn about the alternate aims and audiences of written compositions by writing persuasive, critical, and creative multi-paragraph essays and compositions. Through the study of various genres of literature, students can improve their reading rate and comprehension and develop the skills to determine the author's intent and theme and to recognize the techniques used by the author to deliver his or her message.

ENGLISH III (11) Prerequisite: English I, English II

This course continues to develop students' writing skills, emphasizing clear, logical writing patterns, word choice, and usage, as students write essays and begin to learn the techniques of writing research papers. Students continue to read works of literature, which often form the backbone of the writing assignments. Literary conventions and stylistic devices may receive greater emphasis than in previous courses.

ENGLISH IV (12) Prerequisite: English I, English I, English III

This course blends composition and literature into a cohesive whole as students write critical and comparative analyses of selected literature, continuing to develop their language arts skills. Students primarily write multi- paragraph essays, but they may also write one or more major research papers.

PUBLIC SPEAKING (10-12)

Public Speaking courses enable students, through practice, to develop communication skills that can be used in a variety of speaking situations (such as small and large group discussions, delivery of lectures or speeches in front of audiences, and so on). Course topics may include (but are not limited to) research and organization, writing for verbal delivery, stylistic choices, visual and presentation skills, analysis and critique, and development of self-confidence.

Math

ALGEBRA 1 (9-12) Eighth Grade by permission of instructor

Algebra I course includes the study of properties and operations of the real number system; evaluating rational algebraic expressions; solving and graphing first degree equations and inequalities; translating word problems into equations; operations with and factoring of polynomials; and solving simple quadratic equations.

ALGEBRA I PART 1 (9-12)

The first part in a multi-part sequence of Algebra I. This course generally covers the same topics as the first semester of Algebra I, including the study of properties of rational numbers (i.e., number theory), ratio, proportion, and estimation, exponents and radicals, the rectangular coordinate system, sets and logic, formulas, and solving first degree equations and inequalities.

ALGEBRA I PART 2 (10-12) Prerequisite: Algebra I Part I

The second part in a multi-part sequence of Algebra I. This course generally covers the same topics as the second semester of Algebra I, including the study of properties of the real number system and operations, evaluating rational algebraic expressions, solving and graphing first degree equations and inequalities, translating word problems into equations, operations with and factoring of polynomials, and solving simple quadratics.

ALGEBRA II (10-12) Prerequisite: Algebra I, Geometry

Algebra II course topics typically include field properties and theorems; set theory; operations with rational and irrational expressions; factoring of rational expressions; in-depth study of linear equations and inequalities; quadratic equations; solving systems of linear and quadratic equations; graphing of constant, linear, and quadratic equations; properties of higher degree equations; and operations with rational and irrational exponents.

GEOMETRY (9-12) Prerequisite: Algebra I

Geometry courses, emphasizing an abstract, formal approach to the study of geometry, typically include topics such as properties of plane and solid figures; deductive methods of reasoning and use of logic; geometry as an axiomatic system including the study of postulates, theorems, and formal proofs; concepts of congruence, similarity, parallelism, perpendicularity, and proportion; and rules of angle measurement in triangles.

INFORMAL GEOMETRY (10-12) Prerequisite: Algebra I or Algebra I Part I

Informal Geometry courses emphasize a practical approach to the study of geometry and de-emphasize an abstract formal approach. Topics typically include properties of and work with plane and solid figures; inductive methods of reasoning and use of logic; concepts of congruence, similarity, parallelism, perpendicularity, and proportion; and rules of angle measurement in triangles.

MATH MODELING (10-12) Prerequisite: Algebra I, Geometry or Informal Geometry

The course emphasizes the teaching of mathematics as problem solving, communication, and reasoning, and emphasizes the connections among mathematical topics and between mathematics and other disciplines. The course incorporates a wide-range of topics found in traditional math courses including the following topics: algebra, functions, geometry from both a synthetic and an algebraic perspective, trigonometry, statistics and probability, discrete mathematics.

PROBABILITY & STATISTICS (10-12) Prerequisite: Algebra I, Geometry or Informal Geometry

This course introduces the study of likely events and the analysis, interpretation, and presentation of quantitative data. Topics generally include basic probability and statistics; discrete probability theory, odds and probabilities, probability trees, populations and samples, frequency tables, measures of central tendency, and presentation of data (including graphs). The course may also include normal distribution and measures of variability.

TRIGONOMETRY/MATH ANALYSIS (12) Prerequisite: Algebra I, Geometry, Algebra II

Covering topics of both Trigonometry and Math Analysis, these courses prepare students for eventual work in calculus. Topics typically include the study of right trigonometric and circular functions, inverses, and graphs; trigonometric identities and equations; solutions of right and oblique triangles; complex numbers; numerical tables; polynomial, logarithmic, exponential, and rational functions and their graphs; vectors; set theory; Boolean algebra and symbolic logic; mathematical induction; matrix algebra; sequences and series; and limits and continuity.

Miscellaneous

ONLINE PROCTOR (9-12)

Online course proctored in the library. Ex: College credit, credit recovery, foreign language, etc.

STUDY SKILLS (9-12)

Study skills prepares students for success in high school and/or for postsecondary education. Course topics may vary according to the students involved, but typically include reading improvement skills, such as scanning, note-taking, and outlining; library and research skills; listening and note-taking; vocabulary skills; and test-taking skills. The course may also include some exercises designed to generate organized, logical thinking and writing.

WORK STUDY AIDE (12)

Miscellaneous--Aide courses offer students the opportunity to assist instructors in preparing, organizing, or delivering course curricula or to assist other staff members in fulfilling their duties. Students may provide tutorial or instructional assistance to other students.

Music

HS BAND (9-12)

This course is designed to promote students' technique for playing brass, woodwind, and percussion instruments and cover a variety of band literature styles, primarily for concert performances.

CHORUS (9-12)

Chorus provides the opportunity to sing a variety of choral literature styles for men's and/or women's voices and is designed to develop vocal techniques and the ability to sing parts.

VOICES OF CCHS (9-12) *Prerequisite: audition or permission of instructor*

This class, known as Voices of CCHS, is intended to develop vocal techniques and the ability to sing parts in small ensemble or madrigal groups. Course goals may include the development of solo singing ability and may emphasize one or several ensemble literature styles.

PIANO (9-12)

Piano courses introduce students to the fundamentals of music and basic keyboard techniques such as scales, chords, and melodic lines. These courses may also include more advanced keyboard techniques.

Physical Education/Health

9 PHYSICAL EDUCATION (9)

The purpose of this course is to provide students with knowledge, experience, and an opportunity to develop skills in more than one of the following sports or activities, team sports and games, individual sports, recreational sports, and fitness/conditioning activities.

9 HEALTH (9)

Topics covered in this course may vary widely, but typically include personal health, nutrition, mental health, stress management, drug/alcohol abuse prevention, disease prevention, first aid, and consumer health issues. This course may also include brief studies of environmental health, personal development, and/or community resources.

FITNESS/CONDITIONING (10-12) Prerequisite: Freshman P.E.

Fitness/Conditioning Activities courses emphasize conditioning activities that help develop muscular strength, flexibility, and cardiovascular fitness.

Science

ANATOMY AND PHYSIOLOGY (10-12) Prerequisite: Biology I

This course presents the human body and biological systems in more detail. In order to understand the structure of the human body and its functions, students learn anatomical terminology, study cells and tissues, explore functional systems (skeletal, muscular, circulatory, respiratory, digestive, reproductive, nervous, and so on), and may dissect mammals.

BIOLOGY (9-12)

This course is designed to provide information regarding the fundamental concepts of life and life processes. This course may include such topics as cell structure and function, general plant and animal physiology, genetics, and taxonomy.

BIOLOGY 2 (10-12) Prerequisite: Biology I

Biology 2 covers biological systems in more detail. Topics that may be explored include cell organization, function, and reproduction; energy transformation; human anatomy and physiology; and the evolution and adaptation of organisms.

CHEMISTRY (10-12) Prerequisite: Physical Science

Chemistry involves studying the composition, properties, and reactions of substances. This course typically explores such concepts as the behaviors of solids, liquids, and gases; acid/base and oxidation/reduction reactions; and atomic structure. Chemical formulas and equations and nuclear reactions are also studied.

EARTH & SPACE SCIENCE (10-12) Prerequisite: Physical Science

Earth and Space Science courses introduce students to the study of the earth from a local and global perspective. In these courses, students typically learn about time zones, latitude and longitude, atmosphere, weather, climate, matter, and energy transfer. Advanced topics often include the study of the use of remote sensing, computer visualization, and computer modeling to enable earth scientists to understand earth as a complex and changing planet.

ENGINEERING PRINCIPLES (12) Prerequisite: Completion of 3 science courses.

Principles of Engineering courses provide students with an understanding of the engineering/technology field. Students typically explore how engineers use various technology systems and manufacturing processes to solve problems; they may also gain an appreciation of the social and political consequences to technological change.

ENVIRONMENTAL RESOURCES & WILDLIFE (10-12) Prerequisite: Physical Science

Courses combine the fields of ecology & conservation with planning for the efficient use and preservation of land, water, wildlife, and forests. Within the general area of natural resources management, these courses usually cover specific topics & uses, such as hunting or fishing preserves, forest production and management, wildlife ID, production and/or ecosystems management and preservation, and human outdoor recreation.

ENVIRONMENTAL SCIENCE (10-12) Prerequisite: Physical Science

This course examines the mutual relationships between organisms and their environment. In studying the interrelationships among plants, animals, and humans, this course usually covers the following subjects: photosynthesis, recycling and regeneration, ecosystems, population and growth studies, pollution, and conservation of natural resources.

NATURAL RESOURCES MANAGEMENT (10-12)

Natural Resources Management courses combine the fields of ecology and conservation with planning for the efficient use and preservation of land, water, wildlife, and forests. Within the general area of natural resources management, these courses usually cover specific topics and uses, such as hunting or fishing preserves, forest production and management, wildlife preservation, and human outdoor recreation.

PHYSICAL SCIENCE (9)

This course involves the study of the structures and states of matter. Typically offered as an introductory survey course, it may include such topics as forms of energy, wave phenomenon, electromagnetism, and physical and chemical interactions.

PHYSICS (11-12) Prerequisite: Physical Science, Biology, enrolled in or have taken Algebra II Physics involves the study of the forces and laws of nature affecting matter, such as equilibrium, motion, momentum, and the relationships between matter and energy. The study of physics includes examination of sound, light, and magnetic and electric phenomena.

Social Science

CURRENT ISSUES (9-12)

Current Issues enables students to study political, economic, and social issues facing the world. This course will focus on current issues, examine selected issues throughout the 21st century, and look at historical causes or possible solutions.

ECONOMICS (10-12)

This economics course provides students with an overview of economics with primary emphasis on the principles of microeconomics and the U.S. economic system. This course may also cover topics such as principles of macroeconomics, international economics, and comparative economics. Economic principles may be presented in formal theoretical contexts, applied contexts, or both.

PSYCHOLOGY (10-12)

This course introduces students to the study of individual human behavior. Course content typically includes, but not limited to, an overview of the field of psychology, topics in human growth and development, personality and behavior, and abnormal psychology.

SOCIOLOGY (10-12)

Sociology introduces students to the study of human behavior in society. This course provides an overview of sociology, generally including, but not limited to, topics such as social institutions and norms, socialization and social change, and the relationships among individuals and groups in society.

U.S. HISTORY (11) Prerequisite: World History/Government

U.S. History provides students with an overview of the history of the United States, examining time periods from discovery or colonialism through World War II or after. This course typically includes a historical overview of political, military, scientific, and social developments. Course content may include a history of the North American people before European settlement.

U.S. GOVERNMENT (12) *Prerequisite: World History/Government, U.S. History*

U.S. Government provides an overview of the structure and functions of the U.S. government and political institutions and examine constitutional principles, the concepts of rights and responsibilities, the role of political parties and interest groups, and the importance of civic participation in the democratic process. This course may examine the structure and function of state and local governments and may cover certain economic and legal topics.

WORLD HISTORY AND GEOGRAPHY (9-10)

World History and Geography course provides an overview of world geography. This course is developed in response to increased national concern regarding the importance of geography, and it explores geographical concepts.