

Missouri Course Access and Virtual School Program (MOCAP)
Course Descriptions-MOVA

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KINDERGARTEN ART

Students will: Learn about important paintings, sculpture, and architecture, Study the works of artists like Henri Matisse, Joan Miró, Rembrandt van Rijn, Ando Hiroshige, Paul Cézanne, Pablo Picasso, and Faith Ringgold.

KINDERGARTEN ENGLISH LANGUAGE ARTS

In this course, students receive structured lessons on readiness skills through emphasis on phonics, language skills, literature, and handwriting to help develop comprehension, build vocabulary, and promote a lifelong interest in reading.

KINDERGARTEN MATH

The course introduces Kindergarten students to numbers through 30. Students learn through reading, writing, counting, comparing, ordering, adding, and subtracting. They experience problem solving and encounter early concepts in place value, time, length, weight, and capacity. They learn to gather and display simple data. Students

also study two- and three-dimensional figures—they identify, sort, study patterns, and relate mathematical figures to objects within their environment.

KINDERGARTEN PHYSICAL EDUCATION AND HEALTH

This year-long course provides a daily check in for students to log their required physical activity each day.

KINDERGARTEN SCIENCE

Kindergarten students begin to develop observation skills as they learn about the five senses, the earth's composition, and the basic needs of plants and animals.

KINDERGARTEN SOCIAL STUDIES

The kindergarten Social Studies program teaches topics such as the meaning of national holidays, how people earn and use money, and ways students can help keep the country clean. By the end of the course, students will have a better understanding about what it means to live in the United States.

KINDERGARTEN SPOTLIGHT ON MUSIC

This course offers a variety of learning activities that include singing, dancing, virtual instruments, listening maps, and authentic sound recordings. Music comes to life in the course through six units that are organized into three sections: Spotlight on Concepts, Spotlight on Music Reading, and Spotlight on Celebrations. Students learn about these musical elements: duration, pitch, design, tone color, expressive qualities, and cultural context. Students explore music from around the world while also exploring beat, meter, rhythm, melody, harmony, texture, form, tone color, dynamics, tempo, style, and music background.

1ST GRADE ART

First grade art lessons introduce students to the art and architecture of different cultures, such as Mesopotamia and ancient Egypt, Greece, and China. Students will: Identify landscapes, still-lives, and portraits. Study elements of art, such as line, shape, and texture.

1ST GRADE ENGLISH LANGUAGE ARTS

In this course, students receive structured lessons on readiness skills through emphasis on phonics, language skills, literature, and handwriting to help develop comprehension, build vocabulary, and promote a lifelong interest in reading.

1ST GRADE MATH

This course for students in Grade 1 extends their work with place value to numbers through 100, emphasizing fluency of addition and subtraction facts, and focusing on number sentences and problem solving with addition and subtraction. Students begin work with money, telling time, ordering events, and measuring length, weight, and

capacity with non-standard units. Students identify attributes of geometric figures and also extend their work with patterns and data, including representing and comparing data.

1ST GRADE PHYSICAL EDUCATION AND HEALTH

This year-long course provides a daily check in for students to log their required physical activity each day.

1ST GRADE SCIENCE

Students learn to perform experiments and record observations, and understand how scientists see the natural world. They germinate seeds to observe plant growth, and make a weathervane.

1ST GRADE SOCIAL STUDIES

The Summit Social Studies 1 program teaches how things in the United States work and how they have changed. This course covers topics on the presidents, pioneers, and the cultural traditions. By the end of the course, students will have a better understanding on how to get along in the world and what it means to be a good citizen.

1ST GRADE SPOTLIGHT ON MUSIC

This course offers a variety of learning activities that include singing, dancing, virtual instruments, listening maps, and authentic sound recordings. Music comes to life in the course through six units that are organized into three sections: Spotlight on Concepts, Spotlight on Music Reading, and Spotlight on Celebrations. Students learn about these musical elements: duration, pitch, design, tone color, expressive qualities, and cultural context. Students explore music from around the world while also exploring beat, meter, rhythm, melody, harmony, texture, form, tone color, dynamics, tempo, style, and music background.

2ND GRADE ART

2nd grade art lessons introduce students to the art and architecture of ancient Rome, medieval Europe, Islam, Mexico, Africa, China, and Japan. Students will: Examine elements and principles of art, such as line, shape, pattern, and more. Study and create self-portraits, landscapes, sculptures, and more.

2ND GRADE ENGLISH LANGUAGE ARTS

English Language Arts 2 Summit provides a well-balanced approach to literacy that connects reading, writing, grammar, word study (including vocabulary and spelling), and handwriting into one integrated program. Students learn about grammar, usage, and mechanics and apply those skills as they write, revise, and proofread their work. Students grow their vocabulary by learning the meanings of words from the reading selections, as well as their ability to determine word meanings.

2ND GRADE MATH

Summit Math 2 focuses on numbers through 1,000; time and money; two-digit addition and subtraction; length; story problems; shapes; number patterns; and data displays.

2ND GRADE PHYSICAL EDUCATION AND HEALTH

This year-long course provides a daily check in for students to log their required physical activity each day.

2ND GRADE SCIENCE

Students perform experiments to develop skills of observation and analysis, and learn how scientists understand the world. They demonstrate how pulleys lift heavy objects, make a temporary magnet and test its strength, and analyze the parts of a flower.

2ND GRADE SOCIAL STUDIES

Students expand their map skills by using features of maps, including scale, direction, and location, to read maps and draw conclusions. They study people who influenced history as leaders, inventors, and trailblazers. Students discover cultures around the world and in their own communities. Students also learn the basic concepts and operations of the economy and are introduced to the basic principles of personal finance. Students describe the role of government and expand their understanding of how citizens contribute to their communities.

2ND GRADE SPOTLIGHT ON MUSIC

This course offers a variety of learning activities that include singing, dancing, virtual instruments, listening maps, and authentic sound recordings. Music comes to life in the course through six units that are organized into three sections: Spotlight on Concepts, Spotlight on Music Reading, and Spotlight on Celebrations. Students learn about these musical elements: duration, pitch, design, tone color, expressive qualities, and cultural context. Students explore music from around the world while also exploring beat, meter, rhythm, melody, harmony, texture, form, tone color, dynamics, tempo, style, and music background.

3RD GRADE ART

3rd grade art lessons introduce students to the art and architecture of the Renaissance throughout Europe, including Italy, Russia, and Northern Europe. Students will: Extend their knowledge of elements and principles of art, such as form, texture, and symmetrical balance. Draw, paint, and sculpt a variety of works, including self-portraits, landscapes, and still-life paintings. Investigate artworks from Asia, Africa, and the Americas.

3RD GRADE ENGLISH LANGUAGE ARTS

Summit English Language Arts 3 provides a well-balanced approach to literacy that connects reading, writing, grammar, vocabulary, and spelling into one integrated program. Each unit contains workshops that have one major focus (reading, writing, or word study) for instruction and reinforcement of big ideas.

3RD GRADE MATH

This course focuses on reviewing patterns and number sense; discovering addition, subtraction, multiplication, and division strategies; exploring shapes and calculating area; learning about fractions and equivalent fractions; measuring time, length, liquid volume, and mass; and exploring and making data displays.

3RD GRADE PHYSICAL EDUCATION AND HEALTH

Students exercise daily with workouts tailored to coordinate with the topics they are reading and learning about in the online component of the course. Topics include: components of fitness, health, safety, team sports, individual activities, rhythm, and character.

3RD GRADE SCIENCE

Students learn to observe and analyze through hands-on experiments, and gain further insight into how scientists understand our world. They observe and chart the phases of the moon, determine the properties of insulators and conductors, and make a three-dimensional model of a bone.

3RD GRADE SOCIAL STUDIES

Third graders explore the world around them through the lens of diverse social studies concepts and topics. Students then investigate the regions of the country, studying their physical and human features, history, and culture. They describe how culture changes and adapts to meet human needs as they explore cultures around the world and in their communities. Students learn about the founding documents and principles of America's government to see how state, local, tribal, and national governments operate. They learn that citizens have rights, responsibilities, and civic duties. Students expand their understanding of basic principles of economics and the importance of saving and budgeting for personal financial health.

3RD GRADE SPOTLIGHT ON MUSIC

This hands-on music course offers a variety of learning activities that include singing, dancing, virtual instruments, listening maps, authentic sound recordings with famous past and present artists, a player that allows students to customize key signatures, tempo, and lyrical highlighting, and playing the recorder. Students learn about these musical elements: duration, pitch, design, tone color, expressive qualities and cultural context, while exploring music from all over the world. Students also learn to read music and explore beat, meter, rhythm, melody, harmony, tonality, texture, form, tone color, dynamics, tempo, articulation, style, and music background.

4TH GRADE ART

4th grade art lessons introduce students to the artists, cultures, and great works of art and architecture from French and American Revolutions through modern times. Students will: Study and create artworks in various media, including portraits, quilts, sculpture, collage, and more. Investigate the arts of the United States, Europe, Japan, Mexico, and Africa. Learn about Impressionism, Cubism, Art Nouveau, Regionalism, and more.

4TH GRADE ENGLISH LANGUAGE ARTS

This course provides a well-balanced approach to literacy that connects reading, writing, grammar, vocabulary, and spelling into one integrated program. Students read independently in a variety of genres and formats—fiction,

poetry, drama, nonfiction, and magazines—before exploring each text through various activities; they analyze model writing samples and then work through the writing process to develop original compositions of their own; they learn grammar, usage, and mechanics and apply those skills as they revise and proofread their work. Students grow their vocabulary by learning the meanings of groups of conceptually related words and learn to focus on spelling patterns that are necessary to be fluent, proficient readers, writers, and spellers.

4TH GRADE MATH

Summit Math 4 focuses on expanding understanding of operations with whole numbers, developing a greater understanding of fractions, discovering decimals and their relationship to fractions, and exploring geometric figures.

4TH GRADE PHYSICAL EDUCATION AND HEALTH

Students exercise daily with workouts tailored to coordinate with the topics they are reading and learning about in the online component of the course. Topics include: components of fitness, health, safety, team sports, individual activities, rhythm, and character.

4TH GRADE SCIENCE

Students develop scientific reasoning and perform hands on experiments in Earth, Life, and Physical Sciences. They construct an electromagnet, identify minerals according to their properties, use chromatography to separate liquids, and assemble food webs.

4TH GRADE SOCIAL STUDIES

This course takes students from the arrival of the first people in North America through the Civil War and Reconstruction. Lessons integrate topics in geography, civics, and economics. Students investigate Native American civilizations; follow the path of European exploration and colonization; assess the causes and consequences of the American Revolution; examine the Constitution and the growth of the new nation; and analyze what led to the Civil War and its aftermath.

4TH GRADE SPOTLIGHT ON MUSIC

This hands-on music course offers a variety of learning activities that include singing, dancing, virtual instruments, listening maps, authentic sound recordings with famous past and present artists, a player that allows students to customize key signatures, tempo, and lyrical highlighting, and playing the recorder. Students learn about these musical elements: duration, pitch, design, tone color, expressive qualities and cultural context, while exploring music from all over the world. Students also learn to read music and explore beat, meter, rhythm, melody, harmony, tonality, texture, form, tone color, dynamics, tempo, articulation, style, and music background.

5TH GRADE ART

This course introduces students to the artists, cultures, and great works of art and architecture of North America, from pre-Columbian times through 1877. Students will: Study and create various works, both realistic and abstract,

including sketches, masks, architectural models, prints, and paintings and Investigate the arts of the American Indians, and Colonial and Federal America.

5TH GRADE ENGLISH LANGUAGE ARTS

This course provides a well-balanced approach to literacy that connects reading, writing, grammar, vocabulary, and spelling into one integrated program. Students analyze model writing samples and then work through the writing process to develop original compositions of their own. Students learn grammar, usage, and mechanics and apply those skills as they revise and proofread their work, grow their vocabulary by learning the meanings of groups of conceptually related words, learn to focus on spelling patterns that are necessary to be fluent, proficient readers, writers, and spellers.

5TH GRADE MATH

This course focuses on expanding understanding of operations with fractions, developing a greater fluency with operations with multi-digit numbers, expanding understanding of decimals, and learning to perform operations with decimals, learning about the coordinate plane, and exploring volume.

5TH GRADE PHYSICAL EDUCATION AND HEALTH

Students will develop the knowledge and skills they need to make positive fitness decisions to stay active, safe, and informed, as teenagers and adults. The lessons and activities introduce important aspects of physical health and fitness and focus on helping students learn new fitness skills and stay active. Students will set fitness goals and assess their progress throughout the course. Students will use daily Fitness Plans to guide their physical activity and Fitness Logs to track their activity.

5TH GRADE SCIENCE

Students perform experiments, develop scientific reasoning, and recognize science in the world around them. They build a model of a watershed, test how cell membranes function, track a hurricane, and analyze the effects gravity.

5TH GRADE SOCIAL STUDIES

This course provides a detailed discussion of a range of social studies concepts. With an emphasis on the Western Hemisphere, lessons cover topics in history, geography, government, and economics. Students begin by learning about timelines and historical thinking. They will then examine the early civilizations of the Americas, follow the paths of European explorers in the New World, and investigate the causes and effects of colonization. Next, the course guides students through geographic topics, including maps, globes, locations, and regions. Students will then learn about human systems, public issues, and different forms of government. The course next examines the economic concepts of decision-making, scarcity, production, consumption, and interdependence. Finally, students will learn about jobs and career paths

5TH GRADE SPOTLIGHT ON MUSIC

This hands-on music course offers a variety of learning activities that include singing, dancing, virtual instruments, listening maps, authentic sound recordings with famous past and present artists, a player that allows students to

customize key signatures, tempo, and lyrical highlighting, and playing the recorder. Students learn about these musical elements: duration, pitch, design, tone color, expressive qualities and cultural context, while exploring music from all over the world. Students also learn to read music and explore beat, meter, rhythm, melody, harmony, tonality, texture, form, tone color, dynamics, tempo, articulation, style, and music background.

6TH GRADE EARTH SCIENCE

Students will explore topics such as the fundamentals of geology, oceanography, meteorology, and astronomy; Earth's minerals and rocks; Earth's interior; plate tectonics, earthquakes, volcanoes, and the movements of continents; geology and the fossil record; the oceans and the atmosphere; the solar system and the universe.

6TH GRADE ENGLISH LANGUAGE ARTS

Students read and analyze a variety of informational and fictional texts. Instruction and reading strategies help engage students in the text and sharpen their comprehension. Students study vocabulary, grammar, usage, and mechanics; and practice sentence analysis, sentence structure, and proper punctuation.

6TH GRADE INTERMEDIATE GLOBAL STUDIES

Beginning with the study of geographic themes that provide a framework to analyze different parts of the world, students turn their focus to each geographical region of the world—North America; South America; Europe; Asia; Africa; and Oceania, Australia, New Zealand, and Antarctica. They learn more about the physical and cultural traits that makes each region unique and study their commonalities as well. Students also look at issues such as trade, globalization, the environment, conflict, and other topics that influence the world today.

6TH GRADE MATH

Students deepen their understanding of multiplication and division of fractions to apply their knowledge to divide fractions by fractions. Students gain a foundation in the concepts of ratio and rate as an extension of their work with whole number multiplication and division. Students make connections among area, volume, and surface area, and continue to lay the groundwork for deep algebraic understanding by interpreting and using expressions and equations.

6TH GRADE PHYSICAL EDUCATION AND HEALTH

This course introduces students to health-related fitness components, dance, team sports, and lifetime activities. Students learn the essential principles to live a healthy, active lifestyle. The lessons give students exposure to many activities that can be incorporated into their daily lives.

7TH GRADE ENGLISH LANGUAGE ARTS

Students study a variety of media to understand informational and persuasive techniques, explicit and implied messages, and how visual and auditory cues affect messages. Grammar, usage, and mechanics skills are deepened. Students continue to widen their vocabulary and apply acquisition strategies.

7TH GRADE LIFE SCIENCE

Students explore an amazing variety of organisms, the complex workings of the cell and cell biology, the relationship between living things and their environments, and discoveries in the world of modern genetics. Students tackle such topics as ecology, microorganisms, animals, plants, cells, animals, species, adaptation, heredity, genetics, and the history of life on Earth.

7TH GRADE MATH

Students focus on real-world scenarios and mathematical problems involving algebraic expressions and linear equations and begin to apply their understanding of rational numbers with increased complexity. Students also develop and apply understandings of proportional relationships.

7TH GRADE PHYSICAL EDUCATION AND HEALTH

This course introduces students to diverse activities and learn a wide variety of fitness concepts that they can use in their everyday lives. Students learn skills for lifelong activities, such as strength training and power walking, as well as several options for aerobic activities. They are able to measure their progress and accomplishments through the completion of fitness tests.

7TH GRADE WORLD HISTORY 1

The course focus is the story of the human past and change over time, including the development of religion, philosophy, the arts, and science and technology. Geography concepts and skills are introduced as they appear in the context of the historical narrative. Students explore what archaeologists and historians have learned about the earliest hunter-gatherers and farmers, and then move to a study of the four river valley civilizations.

8TH GRADE AMERICAN HISTORY TO 1877

This course covers from the first arrival of people in North America through the Civil War and Reconstruction. Lessons integrate topics in geography, civics, and economics. Students investigate Native American civilizations; follow the path of European exploration and colonization; assess the causes and consequences of the American Revolution; examine the constitution and the growth of the new nation; and analyze what led to the Civil War and its aftermath.

8TH GRADE ENGLISH LANGUAGE ARTS

The course focuses on interpretation of literary works, analysis of informational texts, and the development of oral and written communication skills. Analysis of the structure and elements of informational texts and media helps students develop the skills needed for academic success. Students continue to acquire knowledge and skills in grammar, usage, mechanics, and vocabulary.

8TH GRADE MATH

Students are prepared for more advanced study in algebra as students solve linear equations and systems of equations, work with radical and integer exponents, gain conceptual understanding of functions, and use functions to model quantitative relationships.

8TH GRADE PHYSICAL EDUCATION AND HEALTH

Students are exposed to various physical activities and fitness concepts that contribute to their overall physical activity level. Skills and concepts include target heart rate, the basics of fitness testing, goal setting, flexibility, aerobic/anaerobic exercise, strength training, and other individual games and activities, as well as team sports.

8TH GRADE PHYSICAL SCIENCE

The course provides an overview of the physical world and gives students tools and concepts to think clearly about matter, atoms, molecules, chemical reactions, motion, force, momentum, work and machines, energy, waves, electricity, light, and other aspects of chemistry and physics. Students study the structure of atoms; the elements and the Periodic Table; chemical reactions; forces, including gravitational, motion, acceleration, and mass; and energy, including light, thermal, electricity, and magnetism.

INTERMEDIATE AMERICAN ART II

This course introduces the artists, cultures, and great works of American art and architecture from the end of the Civil War through modern times. Students will investigate paintings done in various styles, from impressionist to pop; learn about modern sculpture and folk art; discover how photographers and painters have inspired one another; examine examples of modern architecture, from skyscrapers to art museums; and create artworks inspired by works they learn about.

SPOTLIGHT ON MUSIC 6

This course offers a variety of learning activities that include singing, dancing, virtual instruments, listening maps, authentic sound recordings and playing the recorder. Students learn about these musical elements: duration, pitch, design, tone color, expressive qualities and cultural context. Students explore beat, meter, rhythm, melody, harmony, tonality, texture, form, tone color, dynamics, tempo, articulation, style, and music background.

INTERMEDIATE WORLD ART I

Course provides an introduction to the artists, cultures, and great works of world art and architecture from ancient through medieval times. Students will investigate how artists from different civilizations used various techniques, from painting to mosaic; examine elements of design and styles of decoration, from the spiral to the solar disk; and explore some of the best-preserved works from ancient tombs, including the treasures of Egypt's King Tut.

SPOTLIGHT ON MUSIC 7

This course offers a variety of learning activities that include singing, dancing, virtual instruments, listening maps, authentic sound recordings and playing the recorder. Students learn about these musical elements: duration, pitch, design, tone color, expressive qualities and cultural context. Students explore beat, meter, rhythm, melody, harmony, tonality, texture, form, tone color, dynamics, tempo, articulation, style, and music background.

INTERMEDIATE WORLD ART II

Course includes introduction to the artists, cultures, and great works of world art and architecture from the Renaissance through modern times. Students will study various works of art from the Renaissance and beyond; discover great works of art and see how they influenced later artists; compare and contrast works from many civilizations, from paintings to sculpture, architecture, book covers, prints, and more; and create artworks inspired by works they learn about.

SPOTLIGHT ON MUSIC 8

This course offers a variety of learning activities that include singing, dancing, virtual instruments, listening maps, authentic sound recordings and playing the recorder. Students learn about these musical elements: duration, pitch, design, tone color, expressive qualities and cultural context. Students explore beat, meter, rhythm, melody, harmony, tonality, texture, form, tone color, dynamics, tempo, articulation, style, and music background.

MIDDLE SCHOOL CAREERS EXPLORATIONS 2

Students explore more careers and what it takes to succeed in them. They learn more about what steps to take to prepare for a career and how to compare the pros and cons of different career choices. Students get the chance to try out parts of different careers to see what is a good fit.

MIDDLE SCHOOL PHOTOGRAPHY

Students will learn what it takes to create a good photograph and how to improve photographs of animals, people, and vacations. They will also begin working with their photographs using photo-editing software.

MIDDLE SCHOOL SPANISH 1

Students begin their introduction to Spanish by focusing on the four key areas of foreign language study: listening, speaking, reading, and writing. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, and cultural presentations that reinforce vocabulary and grammar.

MIDDLE SCHOOL WEB DESIGN

In this course students learn how to build their own web pages. Students will learn the languages HTML and CSS, and will create their own live homepages to serve as portfolios of their creations. Students will be able to explain how web pages are developed and viewed on the Internet, analyze and fix errors in existing websites, and create their very own multi-page websites.

AGRICULTURE EXPLORATIONS

In this course students explore basic concepts in the broad areas of agribusiness and agriscience, as well as career options in each area. Students study the concepts of horticulture, natural resources, and livestock production, in addition to other common agriculture related functions

ALGEBRA I

In this course, students deepen their understanding of linear and exponential relationships by contrasting them with each other. Students also apply linear models to data that exhibit a linear trend. The course also covers analyzing, solving, and using quadratic functions.

ALGEBRA II

Students build on their work with linear, quadratic, and exponential functions, and extend their repertoire to include polynomial, rational, radical, and trigonometric functions. Students model situations and solve equations, including solving quadratic equations and solving exponential equations using the properties of logarithms.

AMERICAN LITERATURE

In this course, students read and analyze works of American literature from colonial to contemporary times, including poetry, short stories, novels, drama, and nonfiction. These works provide opportunities for text analysis, critical writing, creative projects, and discussion.

ANATOMY AND PHYSIOLOGY

Starting with the relationship between anatomy and physiology, students will then learn about cell structure and their processes. Learners will also discover the functions and purposes of the skeletal, muscular, nervous, and cardiovascular systems, as well as diseases that affect those systems. Students will learn about the structure, function, and interrelation between the lymphatic, immune, respiratory, digestive, urinary, and the endocrine systems

ART APPRECIATION

This course will introduce learners to the various forms of the visual arts, such as painting, sculpture, film, and more. Students will learn how to look at a work of art, identify and compare key characteristics in artworks, and understand the role art has played throughout history.

ARTS, AV, AND COMMUNICATIONS EXPLORATIONS

This course is a Project Based Learning course (PBL). This course is designed as an exploration of the arts, audio/video technology, and communications pathways. Students will get an introduction to arts, audio/video technology, and communications careers so that they can better assess which pathway to pursue. In this course students explore basic concepts in the broad areas of art, audio/video technology, and communication, as well as career options in each area. Students study the concepts of technology skills, audio/video technology, communications, art appreciation, visual and performing arts, journalism and broadcasting, and telecommunications. Students complete projects to develop a deeper understanding of the essential skills and knowledge required for a career in arts, audio/video, or communications.

ASTRONOMY I

Astronomy's history and development, basic scientific laws of motion and gravity, the concepts of modern astronomy, and the methods used by astronomers to learn more about the universe is covered. The study of galaxies, stars, and the origin of the universe is also studied.

BIOLOGY

In this comprehensive course, students investigate the chemistry of living things: the cell, genetics, evolution, the structure and function of living things, and ecology.

BRITISH AND WORLD LITERATURE

Students read selections from British and world literature in a loosely organized chronological framework. They analyze the themes, styles, and structures of these texts and make thematic connections among diverse authors, periods, and settings. .

BUSINESS INFORMATION MANAGEMENT: DATA ESSENTIALS

This course is a Project Based Learning course (PBL). Students learn about professional conduct, teamwork, and managerial skills, while also examining careers in business technology. The basics of word processing, spreadsheets, databases, and presentation software are also explored so that students become better prepared for jobs in this field.

CALCULUS

This course provides a comprehensive survey of differential and integral calculus concepts, including limits, derivative and integral computation, linearization, Riemann sums, the fundamental theorem of calculus, and differential equations.

CAREERS IN UNMANNED FLIGHT SYSTEM (DRONE CERTIFICATION)

Students explore their education and career interests related to unmanned flight systems, define goals, and create a path through high school that will get them there. Students are prepared to take the FAA license exam for Drone Operation. Students must be 17 years of age to take this course.

CHEMISTRY

The course provides an in-depth survey of all key areas, including atomic structure, chemical bonding and reactions, solutions, stoichiometry, thermochemistry, organic chemistry, and nuclear chemistry.

COMPUTER LITERACY

In this introductory course, students become familiar with the basic principles of a personal computer, including the internal hardware, operating system, and software applications. Students gain practice in using key applications such as word processing, spreadsheet, and presentation software, as well as understand social and ethical issues around the Internet, information, and security.

COMPUTER SCIENCE PRINCIPLES

With a unique focus on creative problem solving and real-world applications, this course gives students the opportunity to explore several important topics of computing using their own ideas and creativity, use the power of computing to create artifacts of personal value, and develop an interest in computer science that will foster further endeavors in the field.

CREATIVE WRITING

Students explore a range of creative writing genres, including fiction, poetry, creative nonfiction, drama, and multimedia writing. They study examples of classic and contemporary selections, apply what they learn, and develop proficiency in the writing process.

ENGLISH I

This course includes engaging and interactive instruction about reading, writing, speaking and listening, and language, with a focus on exploring a wide variety of genres and their elements. Students learn how to carefully read, interpret, and analyze literature.

ENGLISH II

The course includes engaging and interactive instruction about reading, writing, speaking and listening, and language, with a focus on exploring a wide variety of genres and their elements. Students learn how to carefully read, interpret, and analyze literature and nonfiction works.

ENTREPRENEURSHIP I

This course is a Project Based Learning course (PBL). In this introductory business course, students learn the basics of planning and launching their own successful business. Whether they want to start their own money-making business or create a non-profit to help others, this course helps students develop the core skills they need to be successful. They learn how to develop new business ideas, attract investors, market their business, and manage expenses.

ENTREPRENEURSHIP II

This course is a Project Based Learning course (PBL). Students build on the business concepts they learned in Entrepreneurship I. Students continue to explore the different functions of business, while refining their technology and communication skills in speaking, writing, networking, negotiating, and listening. The purpose of this course is to prepare students to launch a small business venture.

FINDING YOUR PATH (STUDY SKILLS)

Students explore their education and career interests, define goals, and create a path through high school that will get them there.

FINE ART

This course combines art history, appreciation, and analysis, while engaging students in hands-on creative projects. Lessons introduce major periods and movements in art history while focusing on masterworks and their intellectual, technical, and creative processes.

FORENSIC SCIENCE

Key topics in forensic science are covered, including the application of the scientific process to forensic analysis, procedures and principles of crime scene investigation, physical and trace evidence, and the law and courtroom procedures.

FRENCH I

Students begin their introduction to French by focusing on the four key areas of world language study: listening, speaking, reading, and writing.

FRENCH II

Students continue their study of French by expanding their knowledge of key vocabulary topics and grammar concepts. Students begin to comprehend listening and reading passages more fully, and they also express themselves more meaningfully in both speaking and writing.

GEOMETRY

Students explore more complex geometric situations and deepen students' ability to explain geometric relationships, moving toward formal mathematical arguments. Specific topics include basic tools, transformations, proofs, and congruence.

HEALTH

This course focuses on important skills and knowledge in nutrition; physical activity; the dangers of substance use and abuse; injury prevention and safety; growth and development; and personal health, environmental conservation, and community health resources. CPR is covered.

HEALTH SCIENCE

This course is a Project Based Learning course (PBL) and is designed as an exploration of the health sciences. In this course students explore basic concepts in health for the people, tackling sports injuries, emergency response, and

cancer education, as well as career options in various clusters. Students complete projects to develop a deeper understanding of the roles these career functions play.

HEALTHCARE EXPLORATIONS

This course is a Project Based Learning course (PBL) and is designed as an exploration of career pathways in healthcare. In this course students study the concepts of public service, effective communication, planning for emergencies, legal issues in health care, and career options in addition to other common related functions. Students complete projects to develop a deeper understanding of the roles these career functions play.

INTRODUCTION TO TEACHING

This course exposes students to the realities of teaching while inspiring and welcoming them to a rewarding, high-impact career. Students reflect on the satisfaction and problems of teaching. Course content includes a balanced look at accountability issues such as standards, high-stakes testing and reform. Other topics include technology, cheating, bullying, sexual harassment and homophobia, diversity, vouchers, and legal issues.

IT EXPLORATIONS

This course is designed as an exploration of the information technology career pathways. Students will get an introduction to information technology careers so that they can better assess which pathway to pursue. In this course students explore basic concepts in the broad areas of information technology, as well as career options in each area. Students study the concepts of networking information support, web and digital communications, and programming and software development.

MICROSOFT OFFICE I

This course is for students who wish to learn core skills in Microsoft Word and PowerPoint. Students work through real-world, hands-on projects to hone skills in formatting text, page layout, images, charts, and a vast variety of commonly used word processing and presentation tools. This course prepares students for the Microsoft Word 2019 Associate and Microsoft PowerPoint 2019 Associate certifications.

MICROSOFT OFFICE II

This course is for students who wish to learn core skills in Microsoft Excel, and Access. Students work through hands-on projects to hone skills in data entry and management, formula creation, email management and a vast variety of commonly used email, spreadsheet, and database tools. This course prepares students for the Microsoft Excel 2019 Associate certification.

MUSIC APPRECIATION

This course introduces students to the history, theory, and genres of music. The first semester covers basic music theory concepts as well as early musical forms. The second semester presents modern traditions.

PERSONAL FINANCE

Students learn basic principles of economics and best practices for managing their own finances. Students learn core skills in creating budgets, developing long-term financial plans to meet their goals, and making responsible choices about income and expenses.

PERSONAL FITNESS I

Students learn and practice principles of fitness, wellness, and health to develop habits of healthy living. Students will explore topics that include the physiology of diet and exercise, bio-mechanics, and team dynamics.

PHYSICAL EDUCATION

Students participate in weekly cardiovascular, aerobic, muscle-toning, and other activities. Students keep weekly logs of their physical activity. The course promotes the value of lifetime physical activity and instruction in injury prevention, nutrition and diet, and stress management

PHYSICAL SCIENCE

Students explore the relationship between matter and energy by investigating force and motion, the structure of atoms, the structure and properties of matter, chemical reactions, and the interactions of energy and matter; students develop skills in measuring, solving problems, using laboratory apparatuses, and adhering to experimental procedures

PRE-ALGEBRA

Students take a broader look at computational and problem-solving skills while learning the language of algebra. Students who have already succeeded in Middle School Pre-Algebra should not enroll in this course.

PRE-CALCULUS/TRIGONOMETRY

The course focuses on the mastery of critical skills and exposure to new skills necessary for success in subsequent math courses. Topics include quadratic, exponential, logarithmic, radical, polynomial, and rational functions; matrices; and conic sections in the first semester. The second semester covers an introduction to infinite series, trigonometric ratios, functions, and equations.

PRINCIPLES OF AGRICULTURE

Food has to travel from the farm to the table, and in Principles of Agriculture, Food, and Natural Resources, you will learn about all of the steps in that journey, beginning with the history of agriculture through animal husbandry, plant science, and managing our use of natural resources. In this course, you will receive a broad understanding of the subject matter, preparing you for future hands-on learning, participation in Future Farmers of America, and supervised agricultural experiences.

PSYCHOLOGY

Students investigate why human beings think and act the way they do. This is an introductory course to psychology. Unit topics include: Methods of Study, Biological Basis for Behavior, Learning and Memory, Development and Individual Differences, and Psychological Disorders.

SOCIOLOGY I

How do your beliefs, values, and behavior affect the people around you and the world in which you live? Students examine social problems in the increasingly connected world, and learn how human relationships can strongly influence and impact their lives.

SPANISH I

Students begin their introduction to Spanish by focusing on the four key areas of world language study: listening, speaking, reading, and writing

SPANISH II

Students continue their study of Spanish by expanding their knowledge of key vocabulary topics and grammar concepts. Students not only begin to comprehend listening and reading passages more fully, but also express themselves more meaningfully in speaking and writing

UNITED STATES GOVERNMENT AND POLITICS

This course covers US and state government. There is a strong civics component to this course. This course includes topics such as the nature of economics, demand and supply in the marketplace, business in the free enterprise system and government and the economy.

UNITED STATES HISTORY

This course is a full-year survey that provides students with a comprehensive view of American history from the first migrations of nomadic people to North America to recent events

WORLD HISTORY

The course is organized chronologically and, within broad eras, regionally. Lessons address developments in religion, philosophy, the arts, science and technology, and political history. The course introduces geography concepts and skills within context of the historical narrative.

