COSMOS FOUNDATION INC.

COURSE DESCRIPTIONS

HARMONY SCHOOL SYSTEM

Academic Departments



2009

COSMOS FOUNDATION

Curriculum Grades K-3

Kindergarten

Kindergarten students at Harmony Schools are provided with many exciting opportunities to grow and develop socially, emotionally, and intellectually. Students are taught in a self-contained classroom with opportunities to experience different settings for art, music, P.E. and computer. The curriculum covers all required TEKS and more. Many Harmony students leave kindergarten reading fluently and ready for the exciting world of first grade.

English Language Arts and Reading K

Each day students start by writing the date, finishing a sentence, and drawing pictures in their journals. Then students fill out their classroom calendar, where they sing the days of the week, fill out the weather forecast, and count by 1s, 2s, 5s, and 10s.

Every week students have a word family (-un; sun, bun, spun, fun) and a letter of the week. Students spend a great deal of time working with these words and letters, finding them in stories, using them in sentences, drawing pictures, and fine tuning their handwriting with the help of shaving cream, white boards, and play dough.

Everyday students also participate in English language arts centers. These centers include putting their weekly word family words in ABC order, writing words that they know from their classroom books, and writing and circling their word chucks, which will help them decode larger words.

Mathematics K

Students also have math once a day. In planning math lessons, teachers follow the Pearson-Envision Math program, complete with hands-on activities, computer animated activities, and more. Students' math topics include, but are not limited to, time, money, numbers, grouping, sorting, ordering and patterns.

Science K and Social Studies K

Science and Social Studies each are covered for roughly three hours every week. We are very fortunate to have the help of technology in our classroom to help with visuals for these subjects. Students love to watch things grow, change, and transform with the help of our projector, screen, and internet access.

Library

Once a week students are able to visit the school library. This gives students the opportunity to check out books and hear new stories that the librarians have chosen for their class.

Health and Character Education

Students also cover health and character education once each week. These topics allow students to stay healthy and have a warmer classroom atmosphere.

Computer Science K

All kindergarten students visit the computer lab once per week where they receive instruction in basic computer skills including the following: computer basics, keyboarding, Office word, paint, and basic internet use.

First Grade

First grade is a year full of changes for Harmony students. All subjects are aligned with the TEKS while the teacher strives to reach beyond the basic requirements. During the first grade year the students work in a self-contained classroom to develop their reading and writing skills. A great deal of emphasis is placed on developing good habits as a writer and beginning reader. All students are challenged to reach their fullest potential as the teachers work closely with each student monitoring their growth and tailoring small group instruction. The day would not be complete without opportunities for math, science, social studies, character education and health. Students venture outside of their regular classroom to participate in art, music, P.E., computer labs, and the library.

English Language Arts and Reading 1 (Language Arts/ Reading)

First grade reading at Harmony Schools is designed to develop comprehension and fluency, as well as enhance the desire to read. Students are introduced to several forms of literature: poetry, folklores, tall tales, plays, fiction, and non-fiction. The *McGraw-Hill Reading Series* (yellow books 1-5), *Rigby PM Guided Reading Program*, *Reader's Theater*, and various trade books expose students to reading at individual levels. Teachers also encourage and provide time for daily independent reading. Students are also expected to read every night. Our goal is to help students build confidence in reading and promote an interest in, and appreciation for, the written word.

English Language Arts and Reading 1 (Spelling)

Students are encouraged to use rules for spelling which are taught on an ongoing basis. Students have weekly spelling lists which help expand their knowledge of phonetically based words and sight words. Teachers help them develop an awareness of phonetic patterns and word families.

English Language Arts and Reading 1 (Handwriting)

Teachers reinforce modern manuscript letter formation through daily exercises and instruction. Students are expected to practice their handwriting both for class and homework assignments throughout the year.

Mathematics 1

First graders begin to develop an understanding of basic mathematical concepts. Through manipulatives and the *Pearson Envision Math* series, they explore spatial relations, work with technology, and cultivate problem-solving techniques as part of their math experience. The basic curriculum includes skip counting by 1's, 2's, 5's and 10's, identifying place value to 100, comparing and ordering numbers, mastering all basic addition facts and basic subtraction facts, adding and subtracting two-digit numbers without regrouping, measurement, telling time to the half hour, calendar, counting money, geometry, fractions and graphing. In addition, many Harmony Schools use the *Groundworks* program. This program focuses on the five major strands within the mathematics curriculum and provides a challenging and thought provoking way to solve problems. The areas covered within this program are: reasoning about measurement, reasoning with geometry, algebraic thinking, reasoning with data and probability, and reasoning with numbers.

Science 1

The science program in the first grade focuses on life, earth, and physical sciences with a hands-on approach to learning through a variety of interactive experiences. Students learn about topics such as plants, needs of living things, the sky, matter, force, and learning about and taking care of our bodies.

Social Studies 1

Through interactive lessons, technology, field trips, textbooks, maps, and community centered experiences, students are able to gain an understanding of, and appreciation for, our world. The social studies curriculum begins with a focus on communities in our

multicultural society. Students begin to recognize their membership, role, and responsibilities within a community. They study about the history of our country, as well as other cultures, customs, and traditions. Historically important people are studied throughout the year. First graders are also introduced to the concept of history and map skills.

Health and Character Education

The Harmony first Graders will also cover health and character education each week. These topics teach the students how to take care of themselves inside and out.

Computer Science 1

All Kindergarten students visit the computer lab once per week where they receive instruction in basic computer skills including the following: computer basics, keyboarding, Office word, paint, and basic internet use.

Second Grade

If you ask a second grader what a day at school is like you might get the typical answer "it's ok". If you were to ask a Harmony School second grader the same question, his/her answer would be far from typical. At Harmony the second grade curriculum is filled with exhilarating classes that keep the students excited and eager to learn. During our twenty-two hours of classroom instruction, the students are continually challenged by his/her teachers and peers to do their best everyday.

English Language Arts and Reading 2

The second grade reading at Harmony Schools is designed to develop comprehension and fluency. Our second grade children come with a developmental range of skills, abilities and experiences in reading. Early in the fall we evaluate and assess each child's understanding of reading, interest in books and willingness to engage in the reading process. With the help of several resources including the Rigby PM Guided Reading Program, The McGraw-Hill Reading Series, and Readers Theater the students are able to enhance their knowledge of many different forms of literature and gain practical experience on their individualized reading program. The goal is to help children gain the confidence and interest in poetry, plays, fiction, and non-fiction books. The individual programs allow the children to progress at their competency level, giving them independence and the opportunity to grow above the second grade level by the end of their second grade year.

Mathematics 2

Everyday the second graders are exposed to mathematics. The students are given a sturdy foundation that allows them to be successful in the years to come. Continual use of manipulatives, movement exercises, games, and technology allow each student to be reached at their own cognitive level. Second grade math includes place values to 1000. By the end of the year they will be able to use place value patterns using 0 as a place holder (10, 100, etc.) and will understand that (ten) 10s are equal to 100. Additionally, in numbers up to 1000, the children will know the place value of each digit.

The mathematics curriculum also allows the students to get a good understanding of fractions. Students will understand halves, thirds, quarters, and eighths as parts of a set. They will also know that a complete set makes one whole. The children will be able to skip-count by 2s, 3s, 5s, 10s, 25s, 50s and 100s. Harmony students will be able to count forward or backward by 1s or 10s starting with any number less than 1000. Students will learn the difference between odd and even numbers.

While enjoying the interactive slideshows, PowerPoint will help the children grasp the concept of money. Children will use coins to count mixed groups including pennies, nickels, dimes, quarters, and half-dollars. They will be able to recognize equivalent forms of money values, and will count coins to one dollar or higher during the course of the year.

By the end of their second grade year, Harmony's students will be able to recall addition and subtraction facts from memory. They will understand the inverse relationship between addition and subtraction, and be able to predict the relative size of solutions for both addition and subtraction. The foundation for success will be complete when the students are able to add or subtract two-digit numbers with or without regrouping.

Science 2 and Social Studies 2

Science and Social Studies are each covered for three or more hours every week. Teaching with technology helps our students visualize things easier than just working with a textbook. Through the Harmony Network, our second graders take amazing trips every day. They are given the ability to visit different countries, learn about multicultural societies, or have front row seats to some of America's greatest speakers, all at the click of a button. The students can explore the vast oceans, enjoy an African Safari, or take a trip to the moon thanks to the amazing clips shown on our classroom projector.

Computer Science 2

Second grade students attend computer classes twice per week where they receive instruction in computer basics, keyboarding, Office word, Office excel, and Office Power Point.

Health and Character Education

The Harmony second graders will also cover health and character education each week. These topics teach the students how to take care of themselves inside and out.

Third Grade

Third grade students at Harmony Schools participate in a variety of classes each week. Aside from the regular academic classes, they benefit from two hours each of art, music, PE and computer classes each week. All course work at Harmony Schools is aligned with the TEKS objectives in order to ensure overall academic success. The students have three different teachers who teach the primary academic subjects. These teachers are able to spend time focusing on their designated instruction area. Following is an explanation of the academic subjects for third grade students.

English Language Arts and Reading 3

During the twelve hours per week spent in Reading/Language Arts, we use a variety of resources to teach our students the necessary skills to succeed in reading, language arts and writing. We use the state issued texts along with the Rigby Guided Reading program, novels and more. Through the use of the Rigby Guided Reading Program, we are able to meet the individual needs of the student's reading level/ability. Reading novels as a class allows for an opportunity for cross-curricular instruction. Regardless of what the students are reading, the students are taught and encouraged to find text-to-text, text-to-self and text-to-world connections

Mathematics 3

In 3rd grade, students are required to begin taking the Texas Assessment of Knowledge and Skills (TAKS) in both subjects of math and reading. In third grade math, students spend seven hours per week studying math where they are introduced to and/or expand upon a variety of new material covering topics such as multiplication, division, rounding, fractions, probability, problem solving, patterns, geometry, time, measurement, and collecting and recording data. Through many hands-on activities, manipulatives, daily warm-ups,

continual assessment, and practice, the third grade proves to be a challenging, yet incredibly valuable year in the foundation of math skills.

Science 3

The third grade class uses McGraw Hill textbook to gather information and knowledge about the different sciences. The book has a compilation of experiments and hands-on activities to reinforce a variety of lessons and topics. For more complex experiments and science projects, the class uses the AIMS (Activities Integrating Mathematics & Science) curriculum. This year, the 3rd grade class will conduct a mini Science Fair which in a classroom setting to prepare them for the mandatory, school wide science fair for students in 4th grade and higher.

Social Studies 3

With the use of the textbook and other resources, students are challenged to explore the world around them. The students learn about the different communities, people and culture, citizenship and the government. Students are kept abreast of current events through weekly reports. The students do research and hands-on projects and reports on topics assigned to them.

Computer Science 3

Second grade students attend computer classes twice per week where they receive instruction in computer basics, keyboarding, Office word, Office excel, and Office Power Point.

Character Education

Maintaining a strong sense of character is strongly encouraged and reinforced at Harmony Schools. The students participate in a weekly class where they discuss many topics vital to their lifelong success. The Reader's Theater books are a favorite resource in this class. The students dramatize stories, analyze situations, give solutions to problems and apply what they learn in everyday life.

Curriculum Grades 4-12

Language Arts

English Language Arts and Reading 4-5

In elementary school English Language Arts, students develop their language skills to better understand themselves and the world. Students read and analyze a wide variety of texts, including novels, short stories, plays, essays, and poems from a variety of cultures. Reading instruction centers not on mere comprehension, but focuses on building higher level thinking skills to evaluate the choices of the author and interpret the themes of the work. Students learn literary forms and terms associated with selections being read and apply these in analysis. Teachers model writing strategies for a variety of forms of composition that students apply in their work, centering on the development and mastery of focus and coherence, voice, conventions, depth of thought, and conventions. Students find the tools to express their ideas through vertically aligned vocabulary development stressing mastery of Greek and Latin roots. Students learn to view art and other visual representations as a compliment to the written word and determine an image's connection with the themes of the text. Students develop speaking skills to express their ideas clearly and effectively. Students refine their listening skills to better participate in lecture, classroom discussion, and cooperative group activities.

English Language Arts and Reading ELA 6-8

In middle school English Language Arts, students further develop their language skills to better understand themselves and the world. Students read and analyze a wide variety of texts, including novels, short stories, plays, essays, and poems from a variety of cultures. Reading instruction centers not on mere comprehension, but focuses on building higher level thinking skills to evaluate the literary techniques of the author and interpret the themes of the work. Students learn literary forms and terms associated with selections being read and apply these in analysis. Teachers model writing strategies for a variety of forms of composition that students apply in their work, centering on the development and mastery of focus and coherence, voice, conventions, depth of thought, and conventions. Students find the tools to express their ideas through vertically aligned vocabulary development stressing mastery of Greek and Latin roots. Students learn to view art and other visual representations as a compliment to the written word and determine an image's connection with the themes of the text. Students develop speaking skills to express

their ideas clearly and effectively. Students refine their listening skills to better participate in lecture, classroom discussion, and cooperative group activities.

English I

Grade: 9
Credit: 1.00 (2 semesters)
Prerequisites: 8th Grade English

In English I, students begin developing college level skills in the use and interpretation of language to better understand themselves and their world. Students read and analyze a wide variety of World Literature, including novels, short stories, plays, essays, and poems. Reading instruction centers not on mere comprehension, but focuses on building higher level thinking skills to evaluate the literary techniques of the author and interpret the themes of the work. Students learn literary forms and terms associated with selections being read and apply these in analysis. Teachers model writing strategies that students apply in their work, centering on the development and mastery of focus and coherence, voice, conventions, depth of thought, and conventions. Students compose college level analytical papers using appropriate formatting and documentation. Students find the tools to express their ideas through vertically aligned vocabulary development stressing mastery of Greek and Latin roots. Students learn to view art and other visual representations as a compliment to the written word and determine an image's connection with the themes of the text. Students develop speaking skills to express their ideas clearly and effectively. Students refine their listening skills to better participate in lecture, classroom discussion, and cooperative group activities.

English II

Grade: 10
Credit: 1.00 (2 semesters)
Prerequisites: English I

In English II, students continue developing college level skills in the use and interpretation of language to better understand themselves and their world. Students read and analyze a wide variety of World Literature, including novels, short stories, plays, essays, and poems. Reading instruction centers not on mere comprehension, but focuses on building higher level thinking skills to evaluate the literary techniques of the author and interpret the themes of the work. Students learn literary forms and terms associated with selections being read and apply these in analysis. Teachers model writing strategies that students apply in their work, centering on the development and mastery of focus and coherence, voice, conventions, depth of thought, and conventions. Students compose college level

analytical papers using appropriate formatting and documentation. Students find the tools to express their ideas through vertically aligned vocabulary development stressing mastery of Greek and Latin roots. Students learn to view art and other visual representations as a compliment to the written word and determine an image's connection with the themes of the text. Students develop speaking skills to express their ideas clearly and effectively. Students refine their listening skills to better participate in lecture, classroom discussion, and cooperative group activities.

English III

Grade: 11
Credit: 1.00 (2 semesters)
Prerequisites: English II

In English III, students further develop college level skills in the use and interpretation of language to better understand themselves and their world. Students read and analyze a wide variety of American literature, including novels, short stories, plays, essays, and poems, as well as literature from other cultures. Reading instruction centers not on mere comprehension, but building higher level thinking skills to evaluate the literary techniques of the author and interpret the themes of the work. Students learn literary forms and terms associated with selections being read and apply these in analysis. Teachers model writing strategies that students apply in their work, centering on the development and mastery of focus and coherence, voice, conventions, depth of thought, and conventions. Students compose college level analytical papers using appropriate formatting and documentation. Students find the tools to express their ideas through vertically aligned vocabulary development stressing mastery of Greek and Latin roots. Students learn to view art and other visual representations as a compliment to the written word and determine an image's connection with the themes of the text. Students develop speaking skills to express their ideas clearly and effectively. Students refine their listening skills to better participate in lecture, classroom discussion, and cooperative group activities.

English IV

Grade: 12
Credit: 1.00 (2 semesters)
Prerequisites: English III

In English IV, students master college level skills in the use and interpretation of language to better understand themselves and their world. Students read and analyze a wide variety of British literature, including novels, short stories, plays, essays, and poems, as well as

literature from other cultures. Reading instruction centers not on mere comprehension, but building higher level thinking skills to evaluate the literary techniques of the author and interpret the themes of the work. Students learn literary forms and terms associated with selections being read and apply these in analysis. Teachers model writing strategies that students apply in their work, centering on the development and mastery of focus and coherence, voice, conventions, depth of thought, and conventions. Students find the tools to express their ideas through vertically aligned vocabulary development stressing mastery of Greek and Latin roots. Students learn to view art and other visual representations as a compliment to the written word and determine an image's connection with the themes of the text. Students develop speaking skills to express their ideas clearly and effectively. Students refine their listening skills to better participate in lecture, classroom discussion, and cooperative group activities.

Pre-AP English I and II

Grades: 9-10
Credit: 1.00 (2 semesters)
Prerequisites: Administration and Teacher Approval

In 9th and 10th grade, students may take Pre-AP English Language Arts. Pre-AP prepares students for high school AP courses in language and literature by further emphasizing students' skills in using and analyzing language. In addition to the goals of on-level language arts courses, students read from more advanced texts and seek to offer more in-depth interpretations. Students compose more advanced analytical papers using a college level rubric with appropriate formatting and documentation.

AP English Language and Composition

Grade: 11
Credit: 1.00 (2 semesters)
Prerequisites: Administration and Teacher Approval

In 11th grade, students may take AP English Language and Composition. Teachers create a course audit approved by College Board for accreditation.

College Board states that, "The AP English Language and Composition course is designed to help students become skilled readers of prose written in a variety of rhetorical contexts and to become skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing.

"The goals of an AP English Language and Composition course are diverse because the college composition course is one of the most varied in the curriculum. The college course provides students with opportunities to write about a variety of subjects and to demonstrate an awareness of audience and purpose. But the overarching objective in most first-year writing courses is to enable students to write effectively and confidently in their college courses across the curriculum and in their professional and personal lives. Therefore, most composition courses emphasize the expository, analytical, and argumentative writing that forms the basis of academic and professional communication, as well as the personal and reflective writing that fosters the ability to write in any context. In addition, most composition courses teach students that the expository, analytical, and argumentative writing they must do in college is based on reading texts from various disciplines and periods as well as personal experience and observation. Composition courses, therefore, teach students to read primary and secondary sources carefully, to synthesize materials from these texts in their own compositions, and to cite sources using conventions recommended by professional organizations such as the Modern Language Association (MLA), the University of Chicago Press (*The Chicago Manual of Style*), and the American Psychological Association (APA).

AP English Literature and Composition

Grade: 12

Credit: 1.00 (2 semesters)

Prerequisites: Administration and Teacher Approval

In 12th grade, students may take AP English Literature and Composition. Teachers create a course audit approved by College Board for accreditation.

College Board states that, "The AP English Literature and Composition course is designed to engage students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students can deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students should consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone.

Reading

"Reading in an AP course should be both wide and deep. This reading necessarily builds upon the reading done in previous English courses. These courses should include the in-depth reading of texts drawn from multiple genres, periods, and cultures. In their AP course, students should also read works from several genres and periods -- from the sixteenth to the twenty-first century -- but, more importantly, they should get to know a few works well. They should read deliberately and thoroughly, taking time to understand a

work's complexity, to absorb its richness of meaning, and to analyze how that meaning is embodied in literary form. In addition to considering a work's literary artistry, students should consider the social and historical values it reflects and embodies. Careful attention to both textual detail and historical context should provide a foundation for interpretation, whatever critical perspectives are brought to bear on the literary works studied.

Writing

"Such close reading involves the experience of literature, the interpretation of literature, and the evaluation of literature. All these aspects of reading are important for an AP course in English Literature and Composition, and each corresponds to an approach to writing about literary works. Writing to understand a literary work may involve writing response and reaction papers along with annotation, freewriting, and keeping some form of a reading journal. Writing to explain a literary work involves analysis and interpretation, and may include writing brief focused analyses on aspects of language and structure. Writing to evaluate a literary work involves making and explaining judgments about its artistry and exploring its underlying social and cultural values through analysis, interpretation, and argument.

Mathematics

Math 4

The fourth grade mathematics curriculum uses problem-solving approaches to gain an understanding of mathematical content. Addition and subtraction of whole numbers are reviewed. Multiplication facts are mastered and used to solve problems with two-digit multipliers. Division with one-digit divisors is taught and computation with fractions is introduced. Other topics studied include decimal concepts and computation, geometry, probability and statistics, estimation, and measurement.

Math 5

In fifth grade mathematics, the curriculum emphasizes the development of problem-solving skills and strategies. Computation and statistics are taught within a problem-solving context. Students are taught to read and write large numbers and decimal numbers by learning place values of whole numbers through millions and decimal numbers through thousandths. Students learn computational skills for addition and subtraction of numbers up to five digits, multiplication by two- and three-digit numbers, and division with one- and

two-digit divisors. In addition to paper and pencil computation, students learn to use strategies of mental arithmetic. Students are taught to find and extend patterns and to propose rules to describe relationships and to make estimates and predictions. Manipulative materials and hands-on experiences provide a basis for teaching the concepts and operations of fractions as well as the concepts of measurement and geometry.

Math Course 1

Students in Math Course 1 build a foundation of basic understandings in numbers, operation, and quantitative reasoning, patterns, relationships, and algebraic thinking, geometry and spatial reasoning, measurement, probability and statistics, and problem-solving. The areas of emphasis include using ratios and adding and subtracting decimals and fractions. Students will be given opportunities to use models and manipulatives, collect and interpret data, and develop and describe proportional relationships using appropriate technology. The students will translate mathematical ideas from one form to another with emphasis on oral and written communication. An ever broadening development of algebraic form and concepts further the ability to problem-solve. Problem-solving, communication, connections of concepts both within and outside mathematics, and informal and formal reasoning will also be emphasized

Math Course 2

This course continues the study of basic concepts involved in working with whole numbers, fractions, decimals, integers, and percents. Emphasis is given to problem solving, communicating mathematically, reasoning, connections with other disciplines and the real world, patterns and functions, algebra, statistics, probability, and geometry. Students in grade seven mathematics will extend and build upon their foundation of basic understandings of numbers, operation, and quantitative reasoning, patterns, relationships, and algebraic thinking, geometry and spatial reasoning, measurement, probability and statistics, and problem-solving. Areas of emphasis include using proportional relationships and addition, subtraction, multiplication, and division of decimals, fractions, and integers. Students will continue to experience opportunities to use models, manipulatives, and data collection and interpretation with appropriate technology. Problem-solving, communication, connections of concepts both within and outside mathematics, and informal and formal reasoning will be emphasized.

Math Course 3

This course continues the study of whole numbers, fractions, decimals, and percents. Math course 3 helps students make the transition from arithmetic to algebra. Students are introduced to integers, solving equations, and the basics of algebra early in the course. Other topics include graphing and probability and statistics. Problem solving, applications, and communication are integrated throughout the course. Students in grade eight mathematics will continue to extend and build upon their foundation of basic understandings of numbers, operation, and quantitative reasoning; patterns, relationships, and algebraic thinking; geometry and spatial reasoning; measurement, probability and statistics, and problem-solving. The areas of emphasis are using algebraic principles to analyze proportional relationships and using probability to describe data and make predictions. Students will continue to experience opportunities to use models, manipulatives, and data collection and interpretation using appropriate technology. Problem- solving, communication, connections of concepts both within and outside mathematics, and informal and formal reasoning will be emphasized. This course is designed to successfully prepare students for Algebra in 9th grade.

Algebra I:

Grade: 9
Credit: 1
Prerequisite: Math Course 3

In this two-semester course, students use algebraic methods to explore, model and describe patterns, relationships and functions. There is a strong emphasis on writing, graphing, and solving linear equations. Students will use data collection and analysis; statistics and probability to make inferences, decisions, and arguments as they solve a variety of practical problems. The depth and breadth of the course will develop a strong foundation for the more theoretical and rigorous experience students will encounter at the Advanced Placement level. Algebra I provides a formal development of the algebraic skills and concepts necessary for students who will take other advanced college-preparatory courses. In particular, the instructional program in this course provides for the use of algebraic skills in a wide range of problem-solving situations. The concept of function is emphasized throughout the course. Topics include: (1) operations with real numbers, (2) linear equations and inequalities, (3) relations and functions, (4) graphing linear equations and inequalities, (5) pairs of linear equations and inequalities, (6) polynomials, (7) algebraic functions, (8) quadratic, cubic, and radical equations, and (9) mathematical reasoning and problem solving.

Geometry:

Grade: 10
Credit: 1
Prerequisite: Algebra I

In this course, students use geometric methods, properties and relationships as a means to recognize, draw, describe, connect, and analyze shapes and representations in the physical world. Students will also apply algebraic models and probabilities to physical applications. Students develop powers of spatial visualization while building their understanding of geometric figures. Students develop an understanding of the deductive reasoning method. Through applications and measurements, students use and strengthen their algebra skills. Geometry offers students many opportunities to explore geometric situations, develop conjectures and prove conjectures using a variety of methods. Geometry students examine the properties of two-and three-dimensional objects. Proof and logic, as well as investigative strategies in drawing conclusions, are stressed. Properties and relationships of geometric objects include the study of: (1) points, lines, angles, and planes, (2) polygons, with a special focus on quadrilaterals, triangles, right triangles; (3) circles; and (4) polyhedral and other solids.

Mathematical Models with Applications

Grade: 11
Credit: 1
Prerequisite:Geometry

This is a course for high school students with a minimum prerequisite of Algebra I. This course will reinforce, broaden, and extend the mathematical knowledge and skills acquired in algebra. The course should build on the mathematical background of the students yet stretch their knowledge toward topics studied in Geometry and Algebra II. Students should have the opportunity to reinforce all the TAKS objectives, maintain and extend their algebraic and geometric skills, and find mathematics both useful and enjoyable. The primary purpose of this course is to use mathematics as a tool to model real-world phenomena in science, finance, music, and art including the following basic understandings: In Mathematical Models with Applications, students use algebraic, graphical, and geometric reasoning to recognize patterns and structure, to model information, and to solve problems from various disciplines. Students use mathematical methods to model and solve real-life applied problems involving money, data, chance, patterns, music, design, and science. Students use mathematical models from algebra, geometry, probability, and statistics and connections among these to solve problems from a wide variety of advanced applications in both mathematical and nonmathematical situations. Students use a variety of representations (concrete, pictorial, numerical,

symbolic, graphical, and verbal), tools, and technology (including, but not limited to, calculators with graphing capabilities, data collection devices, and computers) to link modeling techniques and purely mathematical concepts and to solve applied problems. As they do mathematics, students continually use problem solving, language and communication, and reasoning (justification and proof) top make connections within and outside mathematics. Students also use multiple representations, technology, applications and modeling, and numerical fluency in problem-solving contexts.

Algebra II:

Grade: 12

Credit: 1

Prerequisite: Mathematical Models with Applications

Students in this course use algebraic methods to explore, model and describe patterns, relationships and functions involving numbers, shapes, data and graphs within a variety of real-world problem solving situations. They represent problem situations using discrete structures such as finite graphs, matrices, sequences and recurrence relations. This course reviews and builds on those concepts learned in Algebra I and Geometry. It places more emphasis on applying the basic concepts of Algebra to rational numbers and irrational numbers. The course expands techniques in analytical geometry and trigonometry learned in Geometry as a preview of the next two courses offered. Algebra II is a course which extends the content of Algebra I and provides further development of the concept of a function. Topics include: (1) relations, functions, equations, and inequalities; (2) conic sections; (3) polynomials; (4) algebraic functions; (5) logarithmic and exponential functions; (6) sequences and series; and (7) counting principles and probability. Graphing calculator technology is frequently used in this course.

Pre-AP Math Course 2

Grade: 6

This course continues the study of basic concepts involved in working with whole numbers, fractions, decimals, integers, and percents. Emphasis is given to problem solving, communicating mathematically, reasoning, connections with other disciplines and the real world, patterns and functions, algebra, statistics, probability, and geometry. Students in grade seven mathematics will extend and build upon their foundation of basic understandings of numbers, operation, and quantitative reasoning, patterns, relationships, and algebraic thinking, geometry and spatial reasoning, measurement, probability and statistics, and problem-solving. Areas of emphasis include using proportional relationships and addition, subtraction, multiplication, and division of decimals, fractions, and integers.

Students will continue to experience opportunities to use models, manipulatives, and data collection and interpretation with appropriate technology. Problem-solving, communication, connections of concepts both within and outside mathematics, and informal and formal reasoning will be emphasized.

Pre-AP Math Course 3

Grade: 7

This course continues the study of whole numbers, fractions, decimals, and percents. Math course 3 helps students make the transition from arithmetic to algebra. Students are introduced to integers, solving equations, and the basics of algebra early in the course. Other topics include graphing and probability and statistics. Problem solving, applications, and communication are integrated throughout the course. Students in grade eight mathematics will continue to extend and build upon their foundation of basic understandings of numbers, operation, and quantitative reasoning; patterns, relationships, and algebraic thinking; geometry and spatial reasoning; measurement, probability and statistics, and problem-solving. The areas of emphasis are using algebraic principles to analyze proportional relationships and using probability to describe data and make predictions. Students will continue to experience opportunities to use models, manipulatives, and data collection and interpretation using appropriate technology. Problem- solving, communication, connections of concepts both within and outside mathematics, and informal and formal reasoning will be emphasized. This course is designed to successfully prepare students for Algebra in 8th grade.

Pre-AP Algebra I:

Grade: 8

Credit: 1

Prerequisite: Pre-AP Math Course 3

In this two-semester course, students use algebraic methods to explore, model and describe patterns, relationships and functions. There is a strong emphasis on writing, graphing, and solving linear equations. Students will use data collection and analysis; statistics and probability to make inferences, decisions, and arguments as they solve a variety of practical problems. The depth and breadth of the course will develop a strong foundation for the more theoretical and rigorous experience students will encounter at the Advanced Placement level. Algebra I provides a formal development of the algebraic skills and concepts necessary for students who will take other advanced college-preparatory courses. In particular, the instructional program in this course provides for the use of algebraic skills in a wide range of problem-solving situations. The concept of function is

emphasized throughout the course. Topics include: (1) operations with real numbers, (2) linear equations and inequalities, (3) relations and functions, (4) graphing linear equations and inequalities, (5) pairs of linear equations and inequalities, (6) polynomials, (7) algebraic functions, (8) quadratic, cubic, and radical equations, and (9) mathematical reasoning and problem solving.

Pre-AP Geometry:

Grade: 9
Credit: 1
Prerequisite: Pre-AP Algebra I

In this course, students use geometric methods, properties and relationships as a means to recognize, draw, describe, connect, and analyze shapes and representations in the physical world. Students will also apply algebraic models and probabilities to physical applications. Students develop powers of spatial visualization while building their understanding of geometric figures. Students develop an understanding of the deductive reasoning method. Through applications and measurements, students use and strengthen their algebra skills. Geometry offers students many opportunities to explore geometric situations, develop conjectures and prove conjectures using a variety of methods. Geometry students examine the properties of two-and three-dimensional objects. Proof and logic, as well as investigative strategies in drawing conclusions, are stressed. Properties and relationships of geometric objects include the study of: (1) points, lines, angles, and planes, (2) polygons, with a special focus on quadrilaterals, triangles, right triangles; (3) circles; and (4) polyhedral and other solids.

Pre-AP Algebra II:

Grade: 10
Credit: 1
Prerequisite: Pre-AP Algebra I

Students in this course use algebraic methods to explore, model and describe patterns, relationships and functions involving numbers, shapes, data and graphs within a variety of real-world problem solving situations. They represent problem situations using discrete structures such as finite graphs, matrices, sequences and recurrence relations. This course reviews and builds on those concepts learned in Algebra I and Geometry. It places more emphasis on applying the basic concepts of Algebra to rational numbers and irrational numbers. The course expands techniques in analytical geometry and trigonometry learned in Geometry as a preview of the next two courses offered. Algebra II is a course which extends the content of Algebra I and provides further development of the concept of a

function. Topics include: (1) relations, functions, equations, and inequalities; (2) conic sections; (3) polynomials; (4) algebraic functions; (5) logarithmic and exponential functions; (6) sequences and series; and (7) counting principles and probability. Graphing calculator technology is frequently used in this course.

Pre-Calculus

Grade: 11
Credit: 1
Prerequisite: Pre-AP Algebra II

In Pre Calculus, students use symbolic reasoning and analytical methods to represent mathematical situations, to express generalizations, and to study mathematical concepts and the relationships among them. Students use functions, equations, and limits as useful tools for expressing generalizations and as means for analyzing and understanding a broad variety of mathematical relationships. Students also use functions as well as symbolic reasoning to represent and connect ideas in geometry, probability, statistics, trigonometry, and calculus and to model physical situations. Students use a variety of representations (concrete, pictorial, numerical, symbolic, graphical, and verbal), tools, and technology (including, but not limited to, calculators with graphing capabilities, data collection devices, and computers) to model functions and equations and solve real-life problems. As they do mathematics, students continually use problem solving, language and communication, and reasoning (justification and proof) to make connections within and outside mathematics. Students also use multiple representations, technology, applications and modeling, and numerical fluency in problem-solving contexts.

AP Statistics

Grade: 10-11-12
Credit: 1
Prerequisite: Pre AP Algebra I, Teacher Recommendation

Students are introduced to major concepts and tools for collecting, analyzing, and drawing conclusions from data. This course prepares students for the College Board AP Statistics Examination for possible college (one-semester, non-calculus based statistics) credit. Students collect, organize, analyze, interpret, and report data using statistical formulas and processes. Students distinguish between random sampling and biased sampling. Students use statistical measures to analyze real-world phenomena. Upon completion of this course students are well prepared and expected to take the Advanced Placement Statistics test which can result in one semester of college credit. Successful Completion of the AP Exam for any AP course will allow for acquisition of college credit upon approval of the college..

For Advanced Placement courses, please access more information on the internet at the web address

http://apcentral.collegeboard.com/course/descriptions.

AP Calculus AB

Grade: 11-12
Credit: 1
Prerequisite: Pre AP Algebra II, Teacher Recommendation
Students explore functions, graphs, limits, derivatives, and integrals. This course prepares students for the College Board AP Calculus AB Examination for possible college credit (1st semester calculus). For Advanced Placement courses, please access more information on the internet at the web address

http://apcentral.collegeboard.com/course/descriptions.

AP Calculus BC

Grade: 11-12
Credit: 1
Prerequisite: Pre AP Algebra II, Teacher Recommendation
Students explore all topics covered in AP Calculus AB plus additional topics including parametric, polar, and vector functions and polynomial approximations and series. This course prepares students for the College Board AP Calculus BC Examination for possible college credit (a full year of calculus). This exam also has a Calculus AB sub-score grade for students to receive 1st semester college calculus credit. For Advance Placement courses, please access more information on the internet at the web address http://apcentral.collegeboard.com/course/descriptions

Science

Science 4-5

The elementary school science course is a hands-on introduction to basic scientific facts and knowledge. Science curriculum includes units from Earth, Life, and Physical Science as well as the nature of science and the scientific method. Students practice scientific knowledge in well-equipped labs/classrooms in cooperative learning groups.

Science 6-8

The middle school science course is a general, interactive, hands-on program that includes units from the areas of Life, Physical and Earth Science. The main topics in this course are the nature of science, interactions of matter and energy, Earth's systems, the solar system, living organisms, and force and motion. Students are encouraged to develop their critical-thinking, problem solving, and social skills in cooperative learning groups. The student centered environment of science classrooms fosters self-directed, life-long learners.

Biology

Grade: 9-10
Credit: 1.00 (2 semesters)
Prerequisite: None

Biology is designed to acquaint students with basic concepts in science process skills, laboratory skills, and the study of cells, DNA, genetics, the living kingdoms on our earth and how they interact. A study of the fundamental concepts, including the origin and development of life, the similarity of living organisms, the classification, characteristics, structure, reproduction and function of plants and animals, as well as the interrelationships of plants, animals and the physical environment.

Pre-AP Biology

Grade: 9-10
Credit: 1.00 (2 semesters)
Prerequisite: Enrollment in Honor class and teacher recommendation

Pre-AP Biology is designed to acquaint students with basic concepts in science process skills, laboratory skills, and the living kingdoms on our earth and how they interact. A study of the fundamental concepts, including the origin and development of life, the similarity of living organisms, the classification, characteristics, structure, reproduction and function of plants and animals, as well as the interrelationships of plants, animals and the physical environment. The first semester's study includes the study of cells, DNA, genetics. The class can be considered college preparatory, suggested for the average to above average student.

AP Biology

Grade: 10

Credit: 1.00 (2 semesters)

Prerequisite: Biology, Chemistry Honors or an A+ in Chemistry or Teacher approval

This course covers the first year college curriculum and prepares students to take the AP Biology exam. Emphasis is on developing the conceptual framework, knowledge, and analytical skills necessary to understand, and participate in, the modern field of biology. The curriculum includes the study of molecular, cellular, ecological, and evolutionary biology, presented in a variety of formats, including class discussions, readings, lab work, and lecture. Students interested in this course should be successful independent learners with a strong interest in the field of biology.

Chemistry

Grade: 10-11

Credit: 1.00 (2 semesters)

Prerequisite: None

Chemistry provides a broad survey of basic chemistry. The first semester examines chemical and physical properties, the qualitative nature of chemical reactions, chemical periodicity, and bonding. The second semester continues with the quantitative nature of chemical reactions, states of matter, gaseous behavior, solutions, equilibrium, and acid-base chemistry. Throughout the year, the course makes use of laboratory investigations to develop the relationships between experiment and theory.

Pre-AP Chemistry

Grade: 10-11

Credit: 1.00 (2 semesters)

Prerequisite: Biology and Teacher approval

Pre-AP Chemistry covers many of the same topics as Chemistry in greater depth. Special emphasis is placed on a rigorous mathematical examination of chemical principles. The first semester focuses on basic concepts of chemistry including the qualitative nature of chemical reactions, atomic structure, chemical bonding and molecular geometry. The second semester opens with stoichiometry and the quantitative nature of chemical equations. These concepts are then applied to various topics such as the kinetic theory of gases, condensed phases of matter, reaction kinetics, equilibrium, acid-base chemistry and oxidation-reduction chemistry. Interested students must meet with the teacher and get teacher's approval.

AP Chemistry

Grade: 11

Credit: 1.00 (2 semesters)

Prerequisite: Biology, Chemistry, and Teacher approval

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. Students in this course should attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. The curriculum prepares students to take the AP chemistry exam for AP credit. Five general areas are intensively studied: the Structure of Matter, Chemical Bonding, States of Matter, Physical Chemistry and Chemical Reactions. Advanced laboratory work is done in each topic area. Students are expected to take the AP Examination given by the Educational Testing Service in May.

Physics

Grade: 11-12

Credit: 1.00 (2 semesters)

Prerequisites: Biology, Chemistry, and Teacher approval

Physics, as the most basic of all sciences, introduces the nature of basic things around us such as matter, energy, heat, motion, forces, light and sound. This course has been designed to teach the laws of nature in their simplicity, and problem solving skills corresponding to both in ideal and real world situations. The course of physics is integrated with very basic mathematical rules includes mechanics, heat and thermodynamics, waves and optics, electricity and magnetism, and atomic and nuclear physics. A set of experiments will allow students to implement the theory into the real world and appreciate the beauty of the natural world.

Pre-AP Physics

Grade: 11

Credit: 1.00 (2 semesters)

Prerequisites: Biology, Chemistry, and Teacher approval

This advanced level physics course will allow students to learn the same physical concepts with more depth and mathematical basis. The purpose of this course is to prepare students for the college level physics courses.

AP Physics

Grade: 12

Credit: 1.00 (2 semesters)

Prerequisites: Biology, Chemistry, and Teacher approval

This course is designed to introduce a college level, calculus based physics course with a set of advanced laboratory experiments. The students of AP Physics course will be well prepared to the College Board's advance placement physics exam. Also, students will have the opportunity to receive college credits if they can pass the advance placement exam with a satisfactory grade. AP Physics is especially recommended to the students who would like to choose a profession in the fields of science, engineering, and medicine.

Environmental Science

Grade: 12

Credit: 1.00 (2 semesters)

Prerequisites: Biology, Chemistry, and Physics

Environmental Science is designed to provide students the environmental aspects, explore Earth's natural systems, and impacts of human activity on the environment. The topics covered in this course are introduction to ecology, the atmosphere of the Earth, food on Earth, water, and energy. The theory is supported with lab and field investigations, and discussions in cooperative learning groups on environmental issues enable students to improve their critical thinking, and problem solving skills. Students are expected to become more sensitive on environmental issues.

Pre-AP Environmental Science

Grade: 12

Credit: 1.00 (2 semesters)

Prerequisites: Biology, Chemistry, and Physics

Pre-AP Environmental Science is designed to provide students the environmental aspects, explore Earth's natural systems, and impacts of human activity on the environment in more details. The topics covered in this course are introduction to ecology, the atmosphere of the Earth, food on Earth, water, and energy. The theory is supported with lab and field investigations, and discussions in cooperative learning groups on environmental issues enable students to improve their critical thinking, and problem solving skills. Students are expected to become more sensitive on environmental issues.

Social Studies

Social Studies 4

In Grade 4, students examine the history of Texas from the early beginnings to the present within the context of influences of the Western Hemisphere. Historical content focuses on Texas history including the Texas revolution, establishment of the Republic of Texas, and subsequent annexation to the United States. Students discuss important issues, events, and individuals of the 19th and 20th centuries. Students conduct a thorough study of regions in Texas and the Western Hemisphere that result from human activity and from physical features. A focus on the location, distribution, and patterns of economic activities and of settlement in Texas further enhances the concept of regions. Students describe how early Native Americans in Texas and the Western Hemisphere met their basic economic needs and identify economic motivations for European exploration and colonization and reasons for the establishment of Spanish missions. Students explain how Native Americans governed themselves and identify characteristics of Spanish and Mexican colonial governments in Texas. Students recite and explain the meaning of the Pledge to the Texas Flag. Students identify the contributions of people of various racial, ethnic, and religious groups to Texas and describe the impact of science and technology on life in the state. Students use critical-thinking skills to identify cause-and-effect relationships, compare and contrast, and make generalizations and predictions.

Social Studies 5

In Grade 5, students learn about the history of the United States from its early beginnings to the present with a focus on colonial times through the 20th century. Historical content includes the colonial and revolutionary periods, the establishment of the United States, and issues that led to the Civil War. An overview of major events and significant individuals of the late-19th century and the 20th century is provided. Students learn about a variety of regions in the United States that result from physical features and human activity and identify how people adapt to and modify the environment. Students explain the characteristics and benefits of the free enterprise system and describe economic activities in the United States. Students identify the roots of representative government in this nation as well as the important ideas in the Declaration of Independence and the U.S. Constitution. Students recite and explain the meaning of the Pledge of Allegiance. Students examine the importance of effective leadership in a democratic society and identify important leaders in the national government. Students examine fundamental rights guaranteed in the Bill of Rights. Students describe customs and celebrations of various racial, ethnic, and religious groups in the nation and identify the contributions of famous inventors and scientists. Students use critical-thinking skills including sequencing, categorizing, and summarizing information and drawing inferences and conclusions.

Social Studies 6

In Grade 6, students study people and places of the contemporary world. Societies selected for study are chosen from the following regions of the world: Europe, Russia and the Eurasian republics, North America, Middle America, South America, Southwest Asia-North Africa, Sub-Saharan Africa, South Asia, East Asia, Southeast Asia, Australia, and the Pacific Realm. Students describe the influence of individuals and groups on historical and contemporary events in those societies and identify the locations and geographic characteristics of selected societies. Students identify different ways of organizing economic and governmental systems. The concepts of limited and unlimited government are introduced, and students describe the nature of citizenship in various societies. Students compare institutions common to all societies such as government, education, and religious institutions. Students explain how the level of technology affects the development of the selected societies and identify different points of view about selected events.

Social Studies 7 (Texas History)

In Grade 7, students study the history of Texas from early times to the present. Content is presented with more depth and breadth than in Grade 4. Students examine the full scope of Texas history, including the cultures of Native Americans living in Texas prior to European exploration and the eras of mission-building, colonization, revolution, republic, and statehood. The focus in each era is on key individuals, events, and issues and their impact. Students identify regions of Texas and the distribution of population within and among the regions and explain the factors that caused Texas to change from an agrarian to an urban society. Students describe the structure and functions of municipal, county, and state governments, explain the influence of the U.S. Constitution on the Texas Constitution, and examine the rights and responsibilities of Texas citizens. Students use primary and secondary sources to examine the rich and diverse cultural background of Texas as they identify the different racial and ethnic groups that settled in Texas to build a republic and then a state. Students analyze the impact of scientific discoveries and technological innovations such as barbed wire and the oil and gas industries on the development of Texas. Students use primary and secondary sources to acquire information about Texas.

Social Studies 8 (United States History from the Early Colonial Period through Reconstruction)

In Grade 8, students study the history of the United States from the early colonial period through Reconstruction. The knowledge and skills in subsection (b) of this section comprise the first part of a two-year study of U.S. history. The second part, comprising U.S. history since Reconstruction to the present, is provided in §113.32 of this title (relating to

United States History Studies Since Reconstruction (One Credit)). The content builds upon that from Grade 5 but provides more depth and breadth. Historical content focuses on the political, economic, and social events and issues related to the colonial and revolutionary eras, the creation and ratification of the U.S. Constitution, challenges of the early Republic, westward expansion, sectionalism, Civil War, and Reconstruction. Students describe the physical characteristics of the United States and their impact on population distribution and settlement patterns in the past and present. Students analyze the various economic factors that influenced the development of colonial America and the early years of the Republic and identify the origins of the free enterprise system. Students examine the American beliefs and principles, including limited government, checks and balances, federalism, separation of powers, and individual rights, reflected in the U.S. Constitution and other historical documents. Students evaluate the impact of Supreme Court cases and major reform movements of the 19th century and examine the rights and responsibilities of citizens of the United States as well as the importance of effective leadership in a democratic society. Students evaluate the impact of scientific discoveries and technological innovations on the development of the United States. Students use critical-thinking skills, including the identification of bias in written, oral, and visual material.

World Geography

Grade: 9

Credit: 1.00 (2 semesters)

Prerequisites: Social Studies 8

In World Geography Studies, students examine people, places, and environments at local, regional, national, and international scales from the spatial and ecological perspectives of geography. Students describe the influence of geography on events of the past and present. A significant portion of the course centers around the physical processes that shape patterns in the physical environment; the characteristics of major land forms, climates, and ecosystems and their interrelationships; the political, economic, and social processes that shape cultural patterns of regions; types and patterns of settlement; the distribution and movement of world population; relationships among people, places, and environments; and the concept of region. Students analyze how location affects economic activities in different economic systems throughout the world. Students identify the processes that influence political divisions of the planet and analyze how different points of view affect the development of public policies. Students compare how components of culture shape the characteristics of regions and analyze the impact of technology and human modifications on the physical environment. Students use problem-solving and decision-making skills to ask and answer geographic questions.

World History

Grade: 10
Credit: 1.00 (2 semesters)
Prerequisites: World Geography

World History Studies is the only course offering students an overview of the entire history of humankind. The major emphasis is on the study of significant people, events, and issues from the earliest times to the present. Traditional historical points of reference in world history are identified as students analyze important events and issues in western civilization as well as in civilizations in other parts of the world. Students evaluate the causes and effects of political and economic imperialism and of major political revolutions since the 17th century. Students examine the impact of geographic factors on major historic events and identify the historic origins of contemporary economic systems. Students analyze the process by which democratic-republican governments evolved as well as the ideas from historic documents that influenced that process. Students trace the historical development of important legal and political concepts. Students examine the history and impact of major religious and philosophical traditions. Students analyze the connections between major developments in science and technology and the growth of industrial economies, and they use the process of historical inquiry to research, interpret, and use multiple sources of evidence.

Advanced Placement (AP) World History

Grade: 10
Credit: 1.00 (2 semesters)
Prerequisites: Teacher and Administration Approval

The AP World History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in world history. The program prepares students for intermediate and advanced college courses. Students learn to access historical materials and scholarship and evaluate their reliability and importance. This course develops the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format.

United States History since Reconstruction

Grade 11
Credit: 1.00 (2 semesters)
Prerequisites: World History

In this course, which is the second part of a two-year study of U.S. history that begins in Grade 8, students study the history of the United States since Reconstruction to the present. Historical content focuses on the political, economic, and social events and issues related to industrialization and urbanization, major wars, domestic and foreign policies of the Cold War and post-Cold War eras, and reform movements including civil rights. Students examine the impact of geographic factors on major events and analyze causes and effects of the Great Depression. Students examine the impact of constitutional issues on American society, evaluate the dynamic relationship of the three branches of the federal government, and analyze efforts to expand the democratic process. Students describe the relationship between the arts and the times during which they were created. Students analyze the impact of technological innovations on the American labor movement. Students use critical-thinking skills to explain and apply different methods that historians use to interpret the past, including points of view and historical context.

Advanced Placement (AP) United States History

Grade: 11
Credit: 1.00 (2 semesters)
Prerequisites: Teacher and Administration Approval

The AP U.S. History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The program prepares students for intermediate and advanced college courses. Students learn to access historical materials and scholarship and evaluate their reliability and importance. This course develops the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format.

Advanced Placement (AP) European History

Grade 12
Credit: 1.00 (2 semesters)
Prerequisites: Teacher and Administration Approval

The AP European History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The program prepares students for intermediate and advanced college courses. Students learn to access historical materials and scholarship and evaluate their reliability and importance. This course develops the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format.

United States Government

Grade 12
Credit: .5 (1 semesters)
Prerequisites: United States History since Reconstruction

In Government, the focus is on the principles and beliefs upon which the United States was founded and on the structure, functions, and powers of government at the national, state, and local levels. This course is the culmination of the civic and governmental content and concepts studied from Kindergarten through required secondary courses. Students learn major political ideas and forms of government in history. A significant focus of the course is on the U.S. Constitution, its underlying principles and ideas, and the form of government it created. Students analyze major concepts of republicanism, federalism, checks and balances, separation of powers, popular sovereignty, and individual rights and compare the U.S. system of government with other political systems. Students identify the role of government in the U.S. free enterprise system and examine the strategic importance of places to the United States. Students analyze the impact of individuals, political parties, interest groups, and the media on the American political system, evaluate the importance of voluntary individual participation in a democratic society, and analyze the rights guaranteed by the U.S. Constitution. Students examine the relationship between governmental policies and the culture of the United States. Students identify examples of government policies that encourage scientific research and use critical-thinking skills to create a product on a contemporary government issue.

Psychology

Grade: 9, 10, 11, 1
Credit: .5 (1 semester)
Prerequisites: Teacher and Administration Approval

In Psychology, an elective course, students consider the development of the individual and the personality. The study of psychology is based on an historical framework and relies on effective collection and analysis of data. Students study topics such as theories of human development, personality, motivation, and learning.

Sociology

Grade: 9, 10, 11, 12
Credit: .5 (1 semester)
Prerequisites: Teacher and Administration Approval

In Sociology, an elective course, students study dynamics and models of individual and group relationships. Students study topics such as the history and systems of sociology, cultural and social norms, social institutions, and mass communication.

Technology Applications

Computer Science Grades 4-8

In Computer Science, students gain knowledge and skills in the application, design, production, and assessment of products, services, and systems. Knowledge and skills in the proper application of technology, the design of technology, the efficient production of technology, and the assessment of the effects of technology prepare students for success in the modern world. The study of technology allows students to reinforce, apply, and transfer their academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. In addition to their general academic and technical knowledge and skills, students gain an understanding of career opportunities available in technology and what employers require to gain and maintain employment in these careers.

Digital Graphics and Animation

Grade: 9
Credit: 1.00 (2 semesters)
Prerequisite: None

Digital Graphics and Animation is an introductory course in design, typography, and imaging techniques. The course includes topics such as digital composition, color, imaging, editing, and animation. An integral component in other areas, understanding design elements is essential in the creation of a successful product in this course. The student will use the computer's set of tools, common to bitmapped and object-oriented software programs, to produce and edit digital designs as well as to incorporate design principles when capturing digital images with the scanner and camera. Students will work with color, resolution, and halftones as well as other image enhancing strategies including outlining, cropping, digital manipulation, color correction, masking, and the use of channels, paths, background, and layers. Animation, both 2-D and 3-D, will be introduced in this course. Students enrolled in this course will be computer literate and have experience with the basic electronic productivity and telecommunication tools. A prerequisite for this course is grades 6-8 Technology Applications Knowledge and Skills.

Web Mastering

Grade: 10
Credit: 1.00 (2 semesters)
Prerequisite: None

The World Wide Web (WWW) is the fastest growing part of the Internet. The popularity of the WWW is due largely to the ease with which users can not only access and navigate the web but also create pages of information to share with others Students will learn how to design, create, and maintain web pages. Projects will incorporate tools such as HTML, Dreamweaver, Photoshop, Flash, Fireworks, digital cameras, and scanners.

Video Technology

Grade: 11
Credit: 1.00 (2 semesters)
Prerequisite: None

Video production is probably the most universally known of all visual media and is an integral component of many technology applications. The process of editing creates a special mood, tempo, and pace to enhance the subject matter. Video production is not only instructional and analytical, but also artistic. Students will learn video basics as well as participate in pre-production, production, and post production stages of video creation, distribution, and evaluation of the product. Students enrolled in this course will be computer literate and have experience with the basic electronic productivity tools.

Computer Science I

Grade: 9, 10, 11, 12
Credit: 1.00 (2 semesters)
Prerequisite: Teacher Recommendation

Computer Science involves the understanding of programming language concepts and how these are applied to problem solving. The enormous growth of programming languages requires a changing curriculum and flexibility in the pace of instruction. Computer Science I is a course covering problem solving, computer architecture, and programming concepts. This knowledge helps students understand how software is written which increases the student's ability to learn application software through understanding of the basic concepts. Students can study Computer Science to comprehend the social, economic and cultural environment of the information age.

Programming equips students with skills which involve much more than the syntax of a programming language. Computer programs are a form of communication. When developing program solutions, students consider clarity of expressing (readability), program maintenance, ease of debugging, program extension, reliability, utility, and

validity. Concept mastery of a high level language, while creating solutions which are well structured and modular in nature, is the primary emphasis rather than syntax.

Computer Science II

Grade: 9, 10, 11, 12
Credit: 1.00 (2 semesters)
Prerequisite: Computer science 1 and Teacher approval
Computer Science II reinforces and increases the depth of understanding of the basic concepts and covers advanced programming concepts which are useful in preparation for the Computer Science Advanced Placement tests.

Multimedia

Grade: 9, 10, 11, 12
Credit: 1.00 (2 semesters)
Prerequisite: Teacher approval
Multimedia is a laboratory-based course designed to provide an overview of and experience in multimedia technology. Sounds, images, graphics, and video are the informational projects from which students will construct media rich knowledge structures. Students will develop necessary skills and obtain hands-on experiences working with a variety of multimedia tools to build linear and non-linear interactive products. Students enrolled in this course will be computer literate and have experience with basic electronic productivity tools.

Robotics

Grade: 9, 10, 11, 12
Credit: 1.00 (2 semesters)
Prerequisite: Teacher approval
This course explores concepts related to basic residential wiring, serial and parallel electrical circuits, and wiring connections. The students will also learn about designing and etching a solid state electronic project. Projects will allow students to design and build computer interface boards, learn basic computer programming, and master the control of simple robot functions. Other skills covered include soldering, metering, and working with L.E.D.'s, resistors.

Business Computer Information Systems I

Grade: 9,10,11
Credit: 1.00 (2 semesters)
Prerequisite: None

Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce and/or post-secondary education. Students apply technical skills to address business applications of emerging technologies.

Business Computer Information Systems II

Grade: 9,10,11
Credit: 1.00 (2 semesters)
Prerequisite: Microcomputer Applications, BCIS1

An occupationally specific course (pre-employment laboratory or cooperative education) designed to provide advanced training in concepts and skills related to computer applications. Special emphasis is placed on computer operations, word processing, database management, spreadsheet manipulation, telecommunications, desktop publishing, and other high-level business application software. The course may be taught as a pre-employment laboratory or as cooperative education. The course is approved for computer proficiency credit.

Spanish

Spanish 4-8

This class serves as an introduction to the basics of the Spanish language. The basics of speaking, reading, listening, writing and comprehension are taught, as are aspects of the culture in countries where Spanish is spoken. An emphasis is placed on speaking and comprehension of Spanish. Class participation is required, as is daily study and practice time (outside of the classroom) to ensure the student's success in the course.

Spanish I

Grades: 9-12
Credit 1.0 (2 semesters)
Prerequisites: Spanish 8

This class serves as an introduction to the basics of the Spanish language. The basics of speaking, reading, listening, writing and comprehension are taught, as are aspects of the

culture in countries where Spanish is spoken. An emphasis is placed on speaking and comprehension of Spanish. Class participation is required, as is daily study and practice time (outside of the classroom) to ensure the student's success in the course.

Spanish II - 1.0 credit (2 terms)

Grades: 9-12
Credit 1.0 (2 semesters)
Prerequisites: Spanish I

This class serves to further develop the student's ability to use the Spanish language. Speaking, reading, listening, writing and comprehension of Spanish are taught, as is the culture of the countries where the language is spoken. An emphasis is placed on speaking and comprehension of Spanish. Class participation is required as is daily study and practice time (outside of the classroom) to ensure the student's success in the course.

Spanish III

Grades: 10-12
Credit 1.0 (2 semesters)
Prerequisites: Spanish II

This class serves to further develop the student's ability to use the Spanish language. More emphasis is placed on the culture of Spanish—speaking countries than in previous levels, as well as a higher emphasis on the utilization of Spanish in conversation, presentations, etc. Texts, films and other cultural resources are studied in the target language. Class participation is required as is daily study and practice time (outside of the classroom) to ensure the student's success in the course.

Spanish IV

Grades: 10-12
Credit 1.0 (2 semesters)
Prerequisites: Spanish IIII

This class seeks to develop the student's ability to utilize Spanish to the point of mastery. A higher emphasis is placed on the reading of texts, watching of films and studying the history and culture from the countries where Spanish is spoken. Class participation is required as is daily study and practice time (outside of the classroom) to ensure the student's success in the course.

Turkish

Turkish 4-8

This class serves as an introduction to the basics of the Turkish language. The basics of speaking, reading, listening, writing and comprehension are taught, as are aspects of the culture in countries where Turkish is spoken. An emphasis is placed on speaking and comprehension of Turkish. Class participation is required, as is daily study and practice time (outside of the classroom) to ensure the student's success in the course.

Turkish I

Transcript Code: OTHR FL1 (Turkish)
Grade: 9
Credit: 1.00 (2 semesters)
Prerequisite: None

Introduction to Turkish Language is an introductory course which aims to have its attendants to grasp the logic of Turkish Language, that is, the logic of its pronunciation, and the logic of its grammar, including word and sentence structure. Our objective is to get familiar with the Turkish sounding and obtain necessary vocabulary for higher levels.

Turkish II

Transcript Code: OTHR FL2 (Turkish)
Grade: 10
Credit: 1.00 (2 semesters)
Prerequisite: None

Turkish -II is an introductory class which aims to have its attendants grasp the logic of Turkish Language, that is, the logic of its pronunciation, and the logic of its grammar, including word and sentence structure. Our objective is to be able to make three-word sentences and to be able to understand pre-intermediate level of conversations by the end of the term.

Turkish III

Transcript Code: OTHR FL3 (Turkish)
Grade: 11
Credit: 1.00 (2 semesters)
Prerequisite: None

The goal of this course is to have its students to gain a command of Turkish language by which they are going to be able to communicate with native speakers of this language on simple daily settings. For this purpose, this year's curriculum includes all basic tenses and sentence structures in *grammar*- like present, future and past tenses, must, need to, etc.; basic conversation examples in *speaking and listening*- like "at the bus station", "in the restaurant", etc.; related words in *vocabulary*; basic information about *Turkish Culture*; and improving writing skills in *dictation*. Last year in Turkish-II , we underscored grammar and we tried to grasp the logic of the language. This year we continue with the application of the skills we got, namely, we are going to build conversation skills.