## **BUSINESS EDUCATION**

COURSE TITLE: **PRINCIPLES OF BUSINESS** 

GRADE LEVEL: 9, 10, 11, 12

COURSE DESCRIPTION: This course provides students with a basic foundation to study business and marketing principles. This course also provides students with information to become better consumers. Major topics of study include banking, credit, investments, budgeting, principles of insurance and taxes, business organization and consumerism. Information relating to the free enterprise system and its impact on the flow of goods and services into our economy is emphasized.

COURSE TITLE: COMPUTER & TECHNOLOGY APPLICATIONS

GRADE LEVEL: 9, 10, 11, 12

COURSE DESCRIPTION: This course is designed to provide students with practical applications through hand-on use of word processing, spreadsheets and graphs, database management, desktop publishing, presentation software, desktop management, electronic communications, and the Internet.

COURSETITLE: ADVANCED COMPUTER & TECHNOLOGY APPLICATIONS

GRADE LEVEL: 10, 11, 12

PREREQUISITE: Computer & Technology Applications

COURSE DESCRIPTION: This course is designed to provide students with an advanced-level experience with practical applications through hands-on instruction. Course content will include understanding of various hardware, software, operating systems, care/operations, administrative applications, and employable skills.

## **FOREIGN LANGUAGE**

#### **FRENCH**

COURSE TITLE: *FRENCH I* GRADE LEVEL:9, 10, 11, 12

COURSE DESCRIPTION: This is a college preparatory course designed for students to master the basic vocabulary and grammar structures of the French language, to achieve an appreciation of the breadth of the French-speaking world and to become familiar with this world. This course is structured in manageable steps so that the student can master various elements of a new language and use them in meaningful self-expression. There is a strong emphasis on France, its history, geography, and culture.

COURSE TITLE: *FRENCH II* GRADE LEVEL: 10, 11, 12 PREREQUISITE: *French I* 

COURSE DESCRIPTION: This college preparatory course includes systematic review, in new contexts, of all the important material presented in French I. The student will continue his/her acquisition of new grammar structures and vocabulary on a strong footing. They will apply these learned skills by creating original dialogues as well as other forms of meaningful self-expression. Opportunities will also be provided to listen and respond to native speakers in a variety of situations.

COURSE TITLE: FRENCH III/IV

GRADE LEVEL: 11, 12

PREREQUISITES: French II or III

COURSE DESCRIPTION: This college preparatory course consolidates the foundation established in French I and II. There are oral and written activities for guided listening and speaking practice. There is stress on creative oral and written self-expression. There are French readers designed to correlate the grammar and culture of the contemporary French-speaking world.

COURSE TITLE: ADVANCED PLACEMENT FRENCH

**GRADE LEVEL: 12** 

PREREQUISITES: French IV. In addition, grades in prerequisite courses and teacher recommendations will be considered.

COURSE DESCRIPTION: The Advanced Placement Program offers two separate, parallel courses: French Language and French Literature. Each is intended for qualified students who are interested in completing studies comparable in content and in difficulty to a full-year course in Advanced French Composition and Conversation at the third-year college level or to an Introduction To French Literature, also at level 3. The AP French course is designed, in accordance with the National Standards for Foreign Language Learning, to provide students with a communicative ability in French language.

Students must take the AP French exam.

#### **SPANISH**

COURSE TITLE: **SPANISH I** GRADE LEVEL: 9, 10, 11, 12

COURSE DESCRIPTION: This first-year course is directed to students who wish to use Spanish as a mean of communication, both oral and written. During this first-year course, the student will develop the four language skills: listening, speaking, reading and writing. Basic elementary grammar will be introduced including nouns, articles, pronouns, verbs, and adjectives. Present and present progressive tenses will be taught. In addition to understanding and saying in Spanish many of the things students use every day in English, they will gain information about the culture and way of life of Spanish-speaking people.

COURSE TITLE: SPANISH II

GRADE LEVEL: 10, 11, 12 PREREQUISITE: Spanish I

COURSE DESCRIPTION: During this second year, the student will continue to develop the four language skills: listening, speaking, reading and writing. In Spanish II, more complex grammar will be taught along with the preterit and imperfect tenses.

COURSE TITLE: SPANISH III/IV

GRADE LEVEL: 11, 12

PREREQUISITE: Spanish II or III

COURSE DESCRIPTION: This course is designed to develop competency and fluency in Spanish, combining listening, speaking, reading, and writing for proficient communication using real life language. Spanish III concentrates on grammar, verbs, and vocabulary with more advanced reading and listening selections. Class format is similar to Spanish I & II, but more intensive study is desired.

Spanish IV requires a high degree of teacher-guided independent reading and independent study along with grammar review. Students will "read to <u>learn</u> information" rather than just for momentary comprehension, and will produce advanced written and oral work in preparation for college Spanish.

#### COURSE TITLE: **DUAL CREDIT SPANISH I**

Elementary Spanish 101

GRADE LEVEL: 11, 12

PREREQUISITE: Spanish II. In addition, grades in prerequisite courses and teacher recommendations will be considered.

COURSE DESCRIPTION: Elementary Spanish I introduces basic modes of communication in Spanish. It emphasizes everyday language which the students will learn by applying essential grammatical structures to vocabulary. It also presents an overview of the culture of various Spanish-speaking countries. It has been designed to help students develop fluency in understanding, speaking, reading, and writing Spanish is common everyday situations. Fundamentals of pronunciation, conversation, intonation, and grammar are emphasized. Students earn 4 college credit hours and .5 high school credits for this one semester course.

COURSE TITLE: **DUAL CREDIT SPANISH II** 

Elementary Spanish 102

GRADE LEVEL: 11, 12

PREREQUISITE: Students must receive a grade of "B" or higher in Spanish 101

COURSE DESCRIPTION: Elementary Spanish II continues to highlight the basic modes of

communication in Spanish to include present and past tenses.

Students earn 4 college credit hours and .5 high school credits for this one semester course.

# HISTORY & APPRECIATION OF VISUAL AND PERFORMING ARTS (HAVPA)

#### ART

COURSE TITLE: *ART I* GRADE LEVEL: 9, 10, 11, 12

COURSE DESCRIPTION: Art I is a course that consists of study and execution of art projects that include two of the basic design elements of line and color. These elements are the most basic foundation for artistic expression. The projects are two dimensional in nature, drawings and paintings. Textbooks and periodicals, "Scholastic Art" are for supplementary use for the study of vocabulary, art history, artists and art periods, reference and reflection.

Students are required to provide some of the necessary supplies required to complete assignments for this course.

COURSE TITLE: *ART II* GRADE LEVEL: 10, 11, 12 PREREQUISITE: *Art I* 

COURSE DESCRIPTION: Art II is a course consisting of the study of and execution of art projects that build on the basic art elements of line and color mastered in Art I, but with the addition of the remaining basic elements of value, texture, space, and shape. These elements take the student a step further in the study of artistic expression. They will produce work that is more sophisticated and interesting with the emphasis on creativity rather than basic skill. Textbooks and periodicals, "Scholastic Art" are for supplementary use for the study of vocabulary, art history, artists and art periods, reference and reflection.

Students are required to provide some of the necessary supplies required to complete assignments for this course.

COURSE TITLE: *ART III*GRADE LEVEL: 11, 12
PREREQUISITE: *Art II* 

COURSE DESCRIPTION: This course consists of the study and construction of projects that are three-dimensional. They must be viewed from all sides. The problem solving in this class will be based on understanding the filling of space. Textbooks and periodicals, "Scholastic Art" are for supplementary use for the study of vocabulary, art history, artists and art periods, reference and reflection.

Students are required to provide some of the necessary supplies required to complete assignments for this course.

COURSE TITLE: ART IV

GRADE ELVEL: 12 PREREQUISITE: *Art III* 

COURSE DESCRIPTION: After successfully completing Art II and Art III, the talented student with a strong interest in art or an art related field, has the option to enroll in Directed Studies. The student, with the direction of the teacher, will plan and construct his/her own course of study. A group of completed projects will be assessed at the end of the semester by a critic. The student will culminate the year with a required individual exhibit. Textbooks and periodicals, "Scholastic Art" are for supplementary use for the study of vocabulary, art history, artists and art periods, reference and reflection.

Students are required to provide the necessary supplies required to complete assignments for this course.

COURSE TITLE: AP 2D STUDIO ART

**GRADE LEVEL: 12** 

PREREQUISITES: Art III and teacher recommendation

COURSE DESCRIPTION: This course allows the serious art student the opportunity to receive college credit for an entry-level college design course. The student is required to complete a portfolio containing 27 quality design pieces.

#### **DRAMATICS**

COURSE TITLE: **DRAMA I** GRADE LEVEL: 9, 10, 11, 12

COURSE DESCRIPTION: Students enrolled in Dramatics study major types and styles of dramatic literature. Students explore the philosophy of the dramatist, background of the historical period and the culture of the intended audience. Students study structure, plot, and techniques used to reveal character. Stage performance or oral interpretation may serve to enhance the pupil's understanding and appreciation of the works studied.

Participation in all performances is required.

COURSE TITLE: *DRAMA II* GRADE LEVEL: 10, 11, 12 PREREQUISITE: *Drama I* 

COURSE DESCRIPTION: Students enrolled in Dramatics study major types and styles of dramatic literature. Students explore the philosophy of the dramatist, background of the historical period and the culture of the intended audience. Students study structure, plot, and techniques used to reveal character. Stage performance or oral interpretation may serve to enhance the pupil's understanding and appreciation of the works studied.

Participation in all performances is required.

COURSE TITLE: DRAMA III

GRADE LEVEL: 11, 12 PREREQUISITE: *Drama II* 

COURSE DESCRIPTION: Students enrolled in Dramatics study major types and styles of dramatic literature. Students explore the philosophy of the dramatist, background of the historical period and the culture of the intended audience. Students study structure, plot, and techniques used to reveal character. Stage performance or oral interpretation may serve to enhance the pupil's understanding and appreciation of the works studied.

Participation in all performances is required.

COURSE TITLE: **DRAMA IV** 

**GRADE LEVEL: 12** 

PREREQUISITE: Drama III

COURSE DESCRIPTION: Students enrolled in Dramatics study major types and styles of dramatic literature. Students explore the philosophy of the dramatist, background of the historical period and the culture of the intended audience. Students study structure, plot, and techniques used to reveal character. Stage performance or oral interpretation may serve to enhance the pupil's understanding and appreciation of the works studied.

Participation in all performances is required.

#### **HISTORY**

COURSE TITLE: *TV HISTORY* GRADE LEVEL: 9, 10, 11, 12

COURSE DESCRIPTION: The class takes a cultural approach to television's evolution, as a technology, a "representative," an economic "tool" or mechanism, a method of storytelling and myth-making, and as a cultural practice (i.e., the moon-landing, the Watergate Hearings, The Challenger, 9/11, Superbowl parties; M\*A\*S\*H or Game of Thrones series finales, "watercooler" TV, etc.). Students will be expected to not only watch and analyze television programming, but to use anthropological, literary, and cinematic perspectives as part of this analysis. Sources for this piece of the class will consist of historical information, reviews, Op/Eds, scientific studies/data, marketing research, etc., and will be provided by the instructor. The course focuses on prime-time commercial broadcasting, the medium's technological and economic history, the advent of cable TV, streaming services, and theoretical perspectives.

#### **MUSIC**

COURSE TITLE: ADVANCED ORCHESTRA I

GRADE LEVEL: 9, 10, 11, 12

PREREQUISITE: At least one year of previous instrument study

COURSE DESCRIPTION: Students study and perform traditional orchestral literature including: music of the great classical composers, popular and holiday arrangements, and liturgical music. The class studies basic music theory and form as well as music history and world history as it relates to the music being prepared. The orchestra may perform at such events as holiday concerts, regional invitationals, masses, dinner theater or fundraisers, school meetings, community/club events and potentially, at competitions.

Attendance at all scheduled performances is required.

COURSE TITLE: ADVANCED ORCHESTRA II

GRADE LEVEL: 10, 11, 12

PREREQUISITE: Advanced Orchestra I

COURSE DESCRIPTION: Students study and perform traditional orchestral literature including: music of the great classical composers, popular and holiday arrangements, and liturgical music. The class studies basic music theory and form as well as music history and world history as it relates to the music being prepared. The orchestra may perform at such events as holiday concerts, regional invitationals, masses, dinner theater or fundraisers, school meetings, community/club events and potentially, at competitions.

Attendance at all scheduled performances is required.

COURSE TITLE: ADVANCED ORCHESTRA III

GRADE LEVEL: 11, 12

PREREQUISITE: Advance Orchestra II

COURSE DESCRIPTION: Students study and perform traditional orchestral literature including: music of the great classical composers, popular and holiday arrangements, and liturgical music. The class studies basic music theory and form as well as music history and world history as it relates to the music being prepared. The orchestra may perform at such events as holiday concerts, regional invitationals, masses, dinner theater or fundraisers, school meetings, community/club events and potentially, at competitions.

Attendance at all scheduled performances is required.

COURSE TITLE: ADVANCED ORCHESTRA IV

GRADE LEVEL: 12

PREREQUISITE: Advance Orchestra III

COURSE DESCRIPTION: Students study and perform traditional orchestral literature including: music of the great classical composers, popular and holiday arrangements, and liturgical music. The class studies basic music theory and form as well as music history and world history as it relates to the music being prepared. The orchestra may perform at such events as holiday concerts, regional invitationals, masses, dinner theater or fundraisers, school meetings, community/club events and potentially, at competitions.

Attendance at all scheduled performances is required.

COURSE TITLE: CHOIR I GRADE LEVEL: 9, 10, 11, 12

COURSE DESCRIPTION: The study and performance of the music of the great composers as well as the study of fundamental music theory and choral literature as it relates to public performance. Emphasis is placed on the composer studies, historical events surrounding the music of the great composers, music reading skills, music theory, diction, intonation, and the art of singing including vocal technique. Attendance, contribution to the ensemble, a willingness to adapt oneself to group needs, a desire for musical excellence, are all contributing needs to a vibrant choral ensemble. The chorus will prepare music of the great composers, traditional choral music, folk music, "pop" music, spirituals, as well as music written in the 21st century. In addition, the chorus will provide music for school liturgies. All class work will be directed toward musical performances, such as Christmas Concerts, Spring Concerts, Tour Concerts, etc.

Attendance at all scheduled performances is required.

COURSE TITLE: CHOIR II GRADE LEVEL: 10, 11, 12 PREREQUISITE: Choir I

COURSE DESCRIPTION: The study and performance of the music of the great composers as well as the study of fundamental music theory and choral literature as it relates to public performance. Emphasis is placed on the composer studies, historical events surrounding the music of the great composers, music reading skills, music theory, diction, intonation, and the art of singing including vocal technique. Attendance, contribution to the ensemble, a willingness to adapt oneself to group needs, a desire for musical excellence, are all contributing needs to a vibrant choral ensemble. The chorus will prepare music of the great composers, traditional choral music, folk music, "pop" music, spirituals, as well as music written in the 21st century. In addition, the chorus will provide music for school liturgies. All class work will be directed toward musical performances, such as Christmas Concerts, Spring Concerts, Tour Concerts, etc. Attendance at all scheduled performances is required.

COURSE TITLE: CHOIR III

GRADE LEVEL: 11, 12

COURSE DESCRIPTION: The study and performance of the music of the great composers as well as the study of fundamental music theory and choral literature as it relates to public performance. Emphasis is placed on the composer studies, historical events surrounding the music of the great composers, music reading skills, music theory, diction, intonation, and the art of singing including vocal technique. Attendance, contribution to the ensemble, a willingness to adapt oneself to group needs, a desire for musical excellence, are all contributing needs to a vibrant choral ensemble. The chorus will prepare music of the great composers, traditional choral music, folk music, "pop" music, spirituals, as well as music written in the 21st century. In addition, the chorus will provide music for school liturgies. All class work will be directed toward musical performances, such as Christmas Concerts, Spring Concerts, Tour Concerts, etc.

Attendance at all scheduled performances is required.

COURSE TITLE: CHOIR IV

**GRADE LEVEL: 12** 

COURSE DESCRIPTION: The study and performance of the music of the great composers as well as the study of fundamental music theory and choral literature as it relates to public performance. Emphasis is placed on the composer studies, historical events surrounding the music of the great composers, music reading skills, music theory, diction, intonation, and the art of singing including vocal technique. Attendance, contribution to the ensemble, a willingness to adapt oneself to group needs, a desire for musical excellence, are all contributing needs to a vibrant choral ensemble. The chorus will prepare music of the great composers, traditional choral music, folk music, "pop" music, spirituals, as well as music written in the 21st century. In addition, the chorus will provide music for school liturgies. All class work will be directed toward musical performances, such as Christmas Concerts, Spring Concerts, Tour Concerts, etc. Attendance at all scheduled performances is required.

## **HEALTH/ PHYSICAL EDUCATION**

COURSE TITLE: HEALTH AND PHYSICAL EDUCATION (PE)

GRADE LEVEL: 9 or 10

COURSE DESCRIPTION: The subject matter of health will include the traditional health information, alcohol and drug education, HIV/AIDS, nutrition, self-esteem, values and decision-making. Also, the concept of holistic health, which goes beyond the personal, physical health of individuals, will be explored. Holistic Health examines the health and well-being of society; there are various aspects of the holistic health model: personal, social, economic, political, environmental, etc. Each aspect of the holistic health model will be examined to determine its effect on our personal lives. Students will be exposed to, and be expected to participate in, a wide variety of sporting activities. The outline of this course will follow the seasons. Outdoor sports and activities (i.e., softball, flag football, soccer) will be taught in fall and spring. In winter, the course will focus on a variety of indoor sporting activities.

Students are required to dress in P.E. clothes (T-shirt, shorts or sweatpants, socks and gym shoes).

COURSE TITLE: STRENGTH & CONDITIONING

GRADE LEVEL: 10, 11, 12

PREREQUISITES: ½ credit of Health, ½ credit of PE

COURSE DESCRIPTION: This course is designed to give students the opportunity to learn weight training concepts and techniques used for obtaining optimal physical fitness. Students will benefit from comprehensive weight training and cardiorespiratory endurance activities. Students will learn fundamental weight training, strength training, aerobic training and overall fitness training and conditioning. Students will be empowered to make wise choices and meet challenges and develop positive behaviors in fitness, wellness, and movement activity for a lifetime. When possible, students will be certified in First Aid/CPR.

Students are required to dress in P.E. clothes (T-shirt, shorts or sweatpants, socks and gym shoes).

COURSE TITLE: ADVANCED STRENGTH & CONDITIONING

GRADE LEVEL: 11, 12

PREREQUISITES: Strength and Conditioning

COURSE DESCRIPTION: This course is a continuation of the first-level course. Teacher

approval is required.

Students are required to dress in P.E. clothes (T-shirt, shorts or sweatpants, socks and gym shoes).

### LANGUAGE ARTS

COURSE TITLE: HONORS ENGLISH 9

**GRADE LEVEL: 9** 

COURSE DESCRIPTION: This course establishes a foundation for subsequent English courses. It includes the study of the fundamentals of grammar, vocabulary, literature (drama, fiction, non-fiction, and poetry), composition, and critical thinking skills. Students are responsible for obtaining a copy of any required outside reading materials.

COURSE TITLE: HONORS ENGLISH 10

**GRADE LEVEL: 10** 

PREREQUISITE: English 9

COURSE DESCRIPTION: This course further develops the skills acquired in English 9. It includes a review of grammar and language mechanics, vocabulary, a generic approach to literature (drama, fiction, non-fiction, and poetry), composition, and critical thinking skills.

Students are responsible for obtaining a copy of any required outside reading materials.

COURSE TITLE: HONORS ENGLISH 11

**GRADE LEVEL: 11** 

PREREQUISITE: English 10

COURSE DESCRIPTION: This course further develops the skills acquired in English 10. It includes a chronological approach to a survey in American literature, vocabulary, grammar review, composition, and critical thinking skills.

Students are responsible for obtaining a copy of any required outside reading materials.

COURSE TITLE: HONORS ENGLISH 12

**GRADE LEVEL: 12** 

PREREQUISITE: English 11

COURSE DESCRIPTION: This course further develops the skills acquired in English 11. It includes a survey in British literature, vocabulary, grammar review, composition, and critical thinking skills.

Students are responsible for obtaining a copy of any required outside reading materials.

COURSE TITLE: **DUAL CREDIT ENGLISH I** 

ENGLISH 101

**GRADE LEVEL: 12** 

PREREQUISITE: English 11, AP Language, or AP Literature

ACT Benchmark scores of 18 English and 20 Reading

COURSE DESCRIPTION: This course will train students and give them practice in reading critically, thinking logically, responding to texts, developing research skills, writing substantial essays through systematic revision, addressing specific audiences, and expressing ideas in standard English. It includes a comprehensive grammar and mechanics review.

Students earn 3 hours of college credit and .5 high school credits for this semester course.

NOTE: Students may take this course for high school credit only if the ACT benchmark scores are not achieved with teacher recommendation.

COURSE TITLE: **DUAL CREDIT ENGLISH II** 

ENGLISH 102

**GRADE LEVEL: 12** 

PREREQUISITE: Students must earn a grade of "B" or higher in English 101.

COURSE DESCRIPTION: This class emphasizes argumentative writing and provides further instruction in drafting and systematically revising essays that express ideas in Standard English. In addition, it includes continued instruction and practice in reading critically, thinking logically, responding to texts, addressing specific audiences, and researching and documenting credible academic sources.

Students earn 3 hours of college credit and .5 high school credits for this semester course.

COURSE TITLE: AP ENGLISH & LITERATURE

GRADE LEVEL: 10, 11, 12

PREREQUISITE: English 9 and teacher recommendation for grade 10

COURSE DESCRIPTION: AP English Literature is a college level course and students can, by good performance on the Advanced Placement Examination, obtain college credit and/or advance placement in college English. The course includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit. Response to and interpretation of the literary works will involve close reading, style analysis, active class participation, and writing.

Students are required to take the AP exam.

COURSE TITLE: AP LANGUAGE & COMPOSITION

GRADE LEVEL: 10, 11, 12

PREREQUISITE: English 9 and teacher recommendation for grade 10

COURSE DESCRIPTION: The purpose of Advanced Placement English is to provide able, motivated students an opportunity to do college-level work in high school. Since these students will be petitioning via the Advanced Placement Language and Composition Examination given each May, for college credit, the content and objectives of this course are closely aligned with freshman English course offerings in universities and colleges. One of the main goals of the class is to foster the understanding and appreciation of literary works by major authors, with a humanities emphasis. Hence, the inclusion of music and art, as they might enhance the understanding of particular works, is not infrequent. For the most part, students in AP English will not be concluding their study of writing and discourse in high school, therefore, literary works which exhibit value not only in the literary, but also in the humanistic world which encompasses philosophy, psychology, anthropology, government, history and geography, and the fine arts are chosen for the class.

Students are required to take the AP exam.

COURSE TITLE: JOURNALISM I, II & III

GRADE LEVEL: 10, 11, 12

PREREQUISITE: minimum "B" average in prior English courses

COURSE DESCRIPTION: This course offers a hands-on view of magazine-type publication operations through the production of the annual student yearbook. Students will polish their skills for the sale, layout and design, and placement of advertising. Successful advertising sales counts as one major test in the course grade, and these sales may be made outside of class. Students are expected to provide polished and error-free text copy as a permanent historical record in the yearbook. Students are invited to apply for leadership roles with the clear understanding that those roles may require work outside of class as publication deadlines for each section approach. Finally, this course relies heavily on the skillful use of cutting-edge graphic design software. Each student is required to illustrate those skills through the building and placement of assigned yearbook cover art, advertisements, pages, and sections. Students should also be familiar with photography and will be required to submit photography journals throughout the semester.

## **MATHEMATICS**

COURSE TITLE: ALGEBRA I

**GRADE LEVEL: 9** 

PREREQUISITE: Pre-Algebra. May be taken concurrently with Geometry

COURSE DESCRIPTION: This course is designed to teach the student to solve problems, communicate mathematically, reason and make connections. The course begins with a study of real numbers and proceeds to algebraic expressions, which leads the student into solving equations and inequalities in one variable. Next, the student begins a study of polynomials with much emphasis on factoring. The next step is the study of rational expressions. At this point, the student is ready for linear equations with graphing.

COURSE TITLE: GEOMETRY

GRADE LEVEL: 9, 10

PREREQUISITE: Algebra I or may be taken concurrently

COURSE DESCRIPTION: This course introduces the student to concepts of plane, solid, and coordinate geometry and strongly emphasizes the application of logic and reasoning. The course begins with a review of some basic geometry concepts and an introduction to the use of logic and reasoning to prove simple and complex geometric theorems. The student then studies plane and coordinate geometry concepts like parallel and perpendicular lines, congruence theory, properties of triangles and quadrilaterals, transformations and similarity, right triangles and properties of circles. Time permitting; the course will progress to an introduction to basic trigonometric functions and the analysis of surface area and volume of complex three-dimensional solid shapes like prisms, cylinders, cones, pyramids, and spheres.

COURSE TITLE: ALGEBRA II

GRADE LEVEL: 9, 10, 11

PREREQUISITES: Algebra I and Geometry. Geometry may be take concurrently.

COURSE DESCRIPTION: Algebra II continues and builds on what the student learned in Algebra I by reinforcing the concepts and principles previously introduced and challenging the student with increasingly complex problem solving involving theoretical math concepts and applications to real-life situations. The course begins with a review of basic algebraic concepts like equations and inequalities, linear functions and equations, and systems of linear equations and inequalities. The course then progresses to matrices and determinants, quadratic and polynomial functions, powers and exponents, and rational number theory and applications. Time permitting; the student is then introduced to probability and statistical analysis and trigonometric functions and applications.

COURSE TITLE: INTEGRATED MATH

GRADE LEVEL: 10, 11, 12

PREREQUISITE: Algebra I, Algebra II, and Geometry

COURSE DESCRIPTION: Students will review, enrich and expand mathematical skills and applications previously learned in Algebra 1, Algebra 2 and Geometry through the process of math warm-ups, lecture/notes, guided practice, independent practice, and activities/labs. Students will also practice ACT questions and learn test taking strategies for the ACT math section. Students will be assessed informally through verbal communication, student demonstration, and exit slips. Students will be assessed formally through quizzes, unit exams, semester exams, and writing about mathematics.

COURSE TITLE: PRE-CALCULUS

GRADE LEVEL: 10, 11, 12

PREREQUISITE: Algebra I, Geometry, Algebra II

COURSE DESCRIPTION: This course is designed to prepare the student for calculus. First, there is a rigorous study of trigonometry, followed by a study of logarithms, conic sections with parametric equations and polar coordinates, sequences including probability and statistics.

The course ends with an introduction to limits.

COURSE TITLE: AP STATISTICS

GRADE LEVEL: 10, 11, 12

PREREQUISITE: Algebra I, Geometry and Algebra II

COURSE DESCRIPTION: The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes:

- 1. Exploring Data: Describing patterns and departures from patterns
- 2. Sampling and Experimentation: Planning and conducting a study
- 3. Anticipating Patterns: Exploring random phenomena using probability and simulation
- 4. Statistical Inference: Estimating population parameters and testing hypothesis

Students must take the AP Exam.

COURSE TITLE: **DUAL CREDIT COLLEGE ALGEBRA**MAT 150

GRADE LEVEL: 11, 12

PREREQUISITES: Pre-calculus and Math ACT score of 22 or above

COURSE DESCRIPTION: College Algebra includes selected topics in algebra and analytic geometry. The course develops manipulative skills and concepts required for further study in mathematics. Linear, quadratic, polynomial, rational, exponential, logarithmic and piecewise functions are included as well as systems of equations and an introduction of analytic geometry.

Students receive 3 hours of college credit and .5 high school credits for this semester course.

NOTE: Students may take this course for high school credit only if the Math ACT score of 22 is not achieved with teacher recommendation.

## COURSE TITLE: **DUAL CREDIT COLLEGE TRIGONOMETRY**MAT 155

GRADE LEVEL: 11, 12

PREREQUISITES: College Algebra with the grade of "B" or higher COURSE DESCRIPTION: College Trigonometry includes trigonometric functions, identities, multiple analytic formulas, laws of sines and cosines, graphs of trigonometric functions in rectangular and polar coordinates, and solving trigonometric equations.

Students receive 3 college credit hours and .5 high school credits for this semester course.

COURSE TITLE: AP CALCULUS

GRADE LEVEL: 11, 12

PREREQUISITE: Pre-calculus and teacher recommendation

COURSE DESCRIPTION: The course is designed to prepare the student for the AP Calculus test. The course begins with a study of limits and proceeds through improper integrals. This covers seven to eight chapters in most standard college level books. After a study of limits, the student studies differentiation and its functions with applications and lastly, integration techniques, L'Hopital's Rule and improper integrals. The student must have a graphing calculator. This is a rigorous, fast-paced course; the student must be willing to work diligently. Students must take the AP exam.

## RELIGION

COURSE TITLE: RELIGION 9

**GRADE LEVEL: 9** 

COURSE DESCRIPTION:

The first semester: "The Bible" This course provides a general knowledge and appreciation of Sacred Scripture. The course seeks to first understand the foundation of faith in Scripture, how God reveals himself, Scriptural value in the world, and how to read the Bible. A focus of this Biblical study is the Gospels and Christ.

The second semester: "Jesus Christ" Students will seek an understanding of the mystery of Christ's Incarnation, revelation of the faith, and the Paschal Mystery. Students will understand that Jesus Christ is the ultimate Revelation to us from God. Through this understanding, students will also gain an understanding of who God calls us to be as Christians.

COURSE TITLE: RELIGION 10

**GRADE LEVEL: 10** 

COURSE DESCRIPTION:

The first semester: "The Paschal Mystery" Students will learn that God's plan for our salvation was fulfilled through the redemption that Christ won for us. Emphasis will be on the events of the Paschal Mystery through the study of Scripture and how these events are remembered in the Church today.

The second semester: "The Church". Students will learn that through the Church they encounter the Living Christ. The Church, founded on the Apostles and sustained by the Holy Spirit is the Living Body of Christ today. Emphasis will be on the sacred nature of Church.

COURSE TITLE: RELIGION 11

**GRADE LEVEL: 11** 

COURSE DESCRIPTION:

The first semester: "Life in Christ" This course focuses on the requirements necessary to live out the life that God has planned for us. The emphasis of this course is the development of Christian morality based on Catholic teachings and the Gospel message. Current issues challenging this morality will be discussed.

The second semester: "Social Teachings of the Church" This course focuses on the teachings of the Church regarding social justice. The history of and current teachings of the Church on our social responsibilities will be covered. Topics discussed will include the scriptural and ecclesiastical basis for the social teachings of the Church and how they are to be lived out in today's world.

COURSE TITLE: RELIGION 12

**GRADE LEVEL: 12** 

COURSE DESRCIPTION:

The first semester: "Sacramental Life in Christ" This course is designed to enhance the student's understanding of the sacraments as an opportunity to encounter Christ. Emphasis will be on the sacramental nature of the Church. Each Sacrament will be examined from its institution to the impact on the life of the Church and its members today.

The second semester: "The History of the Catholic Church" The purpose of this course is to provide students with a general understanding of the Church's history from Apostolic times to the present. The content is a survey of the important periods in Church history with an emphasis on the development of Church doctrine, practices and social teachings.

### **SCIENCE**

COURSE TITLE: BIOLOGY

**GRADE LEVEL: 9** 

COURSE DESCRIPTION: Biology begins by exploring characteristics shared by all living organisms; tools and techniques of traditional and modern biology, and the chemistry that affects living matter. Other topics include cell division, genetics, evolution, and ecology. The text is supplemented by hands-on activities and laboratory experiments with interactive computer programs where appropriate and the dissection of a preserved specimen.

COURSE TITLE: HUMAN ANATOMY & PHYSIOLOGY

GRADE LEVEL: 10, 11, 12 PREREQUISITE: *Biology* 

COURSE DESCRIPTION: This course begins with an overview of anatomy and physiology and moves to the levels of structural organization, maintaining life, homeostasis, the language of anatomy (anatomical position, regional terms, directional terms, body planes and sections, and body cavities). The systems of the human body will be studied. A detailed dissection of a preserved specimen will be performed by the students.

COURSE TITLE: BIOETHICS

GRADE LEVEL: 11, 12

PREREQUISITE: Biology, Chemistry

COURSE DESCRIPTION: One semester of Bioethics includes an introduction to the various issues defined within the bioethical field. Evaluation of biological and technological current issues is the primary content. Activities include reading, analyzing, and the critical evaluation of case studies and current events in the field of biology. The class includes reading, presenting and debating biological issues.

COURSE TITLE: ADVANCED PLACEMENT BIOLOGY

GRADE LEVEL: 10, 11, 12

PREREQUISITE: Biology, Chemistry

Grades in prior science course will be considered

COURSE DESCRIPTION: One full year of college level biology will be covered. Topics will be: 1) molecules and cells, including chemistry, cells, photosynthesis, respiration and cell division; 2) genetics and evolution, including heredity, molecular genetics and evolution; 3) organisms and populations, including kingdom survey, plants, animal structure and function, animal reproduction and development, animal behavior and ecology. The text is supplemented by hands-on laboratory work.

Students are required to take the AP exam.

COURSE TITLE: CHEMISTRY

**GRADE LEVEL: 10** 

COURSE DESCRIPTION: This course introduces topics in general chemistry. It starts with measurement and the basic math skills. It also includes atomic structure and theory, periodicity, electronic structure, states of matter, bonding and molecular geometry, chemical formulas and nomenclature, the mole concept, stoichiometry and gas laws. The text is supplemented by hands-on laboratory experiments.

COURSE TITLE: GENERAL PHYSICS

GRADE LEVEL: 11, 12

PREREQUISITE: Biology, Chemistry, Algebra II

COURSE DESCRIPTION: One semester of general physics includes introductory topics of scientific process and mathematical calculations, Newtonian mechanics, electricity and magnetism, and properties of matter. The concepts behind the physical phenomena will be explored; however, a strong mathematical background is necessary to integrate these concepts into the problem solving techniques/equations conducted on a daily basis.

COURSE TITLE: **DUAL CREDIT CHEMISTRY I** 

CHEMISTRY 101

GRADE LEVEL: 11, 12

PREREQUISITE: Biology, Chemistry, Pre-calculus (may be taken concurrently)

COURSE DESCRIPTION: This course is an in-depth introduction to the fundamental laws, theories and concepts of modern chemistry. While students will be familiar with the concepts discussed in their introductory chemistry course, this class will explore these concepts

extensively and introduce topics extending beyond what was previously studied.

Students earn 4 hours of college credit and .5 high school credits for this semester course.

COURSE TITLE: **DUAL CREDIT CHEMISTRY II** 

CHEMISTRY 102

GRADE LEVEL: 11, 12

PREREQUISITE: Students must earn a grade of "B" or higher in Chemistry 101.

COURSE DESCRIPTION: Chemistry 102 is the second semester of a two-semester sequence that covers the important topics in General Chemistry. It is designed to provide an overview of the subject. Along with the lecture, there is a laboratory that provides hands-on experience with chemical concepts and demonstrates important laboratory techniques used by chemists.

Students earn 4 hours of college credit and .5 high school credits for this semester course.

COURSE TITLE: HONORS PHYSICS

GRADE LEVEL: 11, 12

PREREQUISITE: Biology, Chemistry, Pre-Calculus (Pre-Calculus may be taken concurrently).

COURSE DESCRIPTION: This is an algebra-based course with strong emphasis on the

mathematics of physics and formula derivation. Topics will include classic (Newtonian) physics, electricity and magnetism, and properties of matter. The text material is supplemented by hands-on laboratory experiments with interactive computer programs when appropriate.

## **SOCIAL STUDIES**

COURSE TITLE: WORLD CIVILIZATION

GRADE LEVEL: 9, 10

COURSE DESCRIPTION: This course presents a chronological narrative of world history from 1500's through the present. The book is integrated by themes that form the patterns of civilization. Among these themes are political change and economic development, the influence of geography, the growth of science and technology, the effect of contact between cultures, and artistic creativity. A timeline provides an overview of the political, economic, social, and cultural developments studied in the unit. Extracts from primary sources plus features about daily life and about the relationship of the past to present are featured. Visual aids are used to reinforce and enrich the narrative.

COURSE TITLE: AMERICAN HISTORY

GRADE LEVEL: 10, 11

COURSE DESCRIPTION: This is a course designed to give the student an in-depth study of American History from Reconstruction to the present. Emphasis is placed on the nation's development and traces the major ideas and events that shape American culture and democracy. The focus is on the political, economic, geographic and social forces that determine, in great measure, what the United States is like today. Some chapters are mainly chronological narrative history; others are topical or analytical and provide deeper insights into various topics and developments in American history. In the narrative or chronological chapters, the aim is to follow a sequence of developments and events. In the topical or analytical chapters the aim is to understand important trends and ideas.

COURSE TITLE: AP UNITED STATES HISTORY

GRADE LEVEL: 10, 11

PREREQUISITE: Teacher recommendation will be considered

COURSE DESCRIPTION: This class covers the course of United States history from Pre-Columbian period to the present. Advanced Placement United States History is designed to enable students to develop analytical skills and acquire a thorough knowledge of United States History. The approach of the course includes, but is not limited to, the following elements: development of substantial knowledge of social, cultural, political, economic, and military events relevant to the history of the United States; development of assessment and interpretive skills through the writing of coherent essays. A student is expected to display self-motivation, academic ability and willingness to work. The student is expected to be an avid reader with an above average reading comprehension and must be able to complete large blocks of work when assigned. Writing skills are very important, as the student is required to write frequently. At least two hours of outside time is required for every one - hour of class time. The student must make a personal commitment to accept the challenge.

Student must take the AP exam.

COURSE TITLE: AMERICAN GOVERNMENT/ECONOMICS

**GRADE LEVEL: 12** 

COURSE DESCRIPTION: This is a course designed to give the student a broad understanding of the United States government. In American Government students will learn what influenced the concept of American democracy, will be given an in-depth view of the United States Constitution and how it applies in today's society, and will understand the function of the federal and state/local governments. This course will also explore the role of the media in politics, electoral landscapes across the country, basic economic principles of the United States, and current events/issues. We will use a multitude of strategies during this class, including, but not limited to, textbook/article readings, primary source analysis, cooperative learning groups, videos, and the internet. The Dave Ramsey

### TECHNICAL EDUCATION

Courses taken at the Paducah Area Technology Center

PROGRAM: AUTO BODY - COLLISION REPAIR

GRADE LEVEL: 11, 12

COURSE DESCRIPTION: From repairing small dents to rebuilding the bodies of wrecked or damaged vehicles, this program maintains commercial standards. Students are taught the types of materials used in filler compounds, the colors and chemical makeup of paints, welding and cutting procedures, design and installation of trim, cost estimating and preparation for finish work. All are skills applied in actual jobs performed in shop assignments. Program includes Introduction, structural repair, painting and refinishing.

#### PROGRAM: **AUTOMOTIVE TECHNOLOGY**

GRADELEVEL: 11, 12

COURSE DESCRIPTION: Instruction in systems such as engines, fuel, on-board computers, transmissions, steering, suspension, and brakes is the basis of this program. Knowledge of the various systems is used to develop skills in troubleshooting, performing preventive maintenance, servicing and repairing automobiles. Program includes basic automotive electricity, emission systems, brake systems, engine repair and comp. control system.

PROGRAM: **CARPENTRY** GRADE LEVEL: 11, 12

COURSE DESCRIPTION: Carpentry is designed to prepare students for employment in the residential and commercial construction industry. Students are involved in blueprint reading, layout, fabrication, foundation, walls, floors, ceilings, and roofs of structures. Students will use several forms of materials such as wood, metal, plastics, fiberglass, Styrofoam, and concrete in the construction process. Training will emphasize instruction in the care and safe use of hand and power tools. Program includes intro to construction, floor and wall framing, ceiling and roof framing, and industrial safety.

PROGRAM: **HEALTH SCIENCES** 

GRADE LEVEL: 11, 12

COURSE DESCRIPTION: The Health Sciences program provides the secondary student with orientation, exploration, and preparation into the health care industry. Courses are sequenced to provide continuous student progress toward achievement of a certificate. The integration of mathematics, science, communication, and technical knowledge is a vital component of each course offering. The program is designed for students who desire entry-level training and/or plan to enroll in a post secondary program in one of many occupational areas in the health field. Program choices include: EKG Technician, Emergency Medical Technician, Phlebotomy Technician, and Pre-Nursing (MNA).

PROGRAM: **WELDING**GRADE LEVEL: 11, 12

COURSE DESCRIPTION: The Welding program prepares students for industry or other job related fields. Welding students are presented with the knowledge to weld various types of metal using several methods and processes. Students are trained in layout, blueprint reading, work orders, job site safety, and estimating materials for the job. Program includes, cutting processes, shielded metal ARC welding, small grove, gas tungsten ARC, gas metal ARC, and reading blue prints.