





HIV COMMUNITY SCHOOL

PROGRAM OF STUDIES

**2016-2017**

## REQUIREMENTS FOR GRADUATION

To meet the requirements for graduation from HLV Community School, a student will need 44 credits (22 units). Students receive one credit per semester for classes that meet every day for a full period. No matter how many days a student meets in band and chorus each week, these classes receive only one-half (1/2) credit per semester. Students must also pass eight semesters of physical education (except in the case of early graduation or excused for medical reasons). Besides chorus and band, classes that receive less than one credit per semester towards graduation include: physical education (1/4 per semester) and driver education (none).

Below you will find required credits for each subject area for graduation. It is strongly recommended that all students take and pass all specific courses listed below. However, American Government, American History, Speech and Physical Education are the only specific classes that are required for graduation by the State of Iowa. HLV students must still pass the total number of credits for each subject area listed below:

English .....(3 1/2 units) 7 Credits

Speech .....(1/2 unit) 1 Credit

Mathematics .....(3 units) 6 Credits

Science .....(3 units) 6 Credits

Social Studies .....(3 1/2 units) 7 Credits

Physical Education .....(1 unit) 2 Credits

Electives ..... (7 1/2 units) 15 Credits

**TOTAL NUMBER OF CREDITS REQUIRED FOR GRADUATION**

**44 CREDITS  
(22 UNITS)**

# **PRACTICAL ARTS EDUCATION COURSE DESCRIPTIONS**

## **Business Education**

Business Education classes are available as per a shared agreement with BGM Schools in Brooklyn.

## **Agriculture**

### **Intro to Agriculture**

Prerequisite: None

1 Year

Leadership development and overview of: Agriscience industry, Career exploration, Current events in Agriculture, FFA, SAE, Incorporated science labs, and Leadership development. Overview of industries in crop production, animal science, agricultural business, horticulture.

### **Animal Science**

Prerequisite: None

Year 2 or 3, offered every other year

Breeds, basic management and marketing of farm animals. Overview livestock handling, reproduction, nutrition, health, management, and meat processing. Includes live animal demonstrations with cattle for meat and milk, horses, poultry, sheep and swine.

### **Principles of Crop Science**

Prerequisite: None

Year 2 or 3, offered every other year.

This course introduces students to the species and breeds of domestic livestock and development of an appreciation for the principles of livestock production, and issues facing product marketing. Topics include: breeds, basic management, composition, evaluation, and marketing of farm animals and animal products; including beef and dairy cattle, horses, goats, poultry, sheep, and swine.

### **Applied Agribusiness Management**

Prerequisite: None

Year 4

A course designed to emphasize the applied skills necessary for the management of farms and other agribusinesses. Learning opportunities will concentrate on the areas of credit, financial management, investment analysis, risk management, agribusiness law, and tax and business planning. Case studies and other critical thinking opportunities will be utilized to develop problem solving skills unique to agribusiness.

## **Health Careers**

### **HEALTH CAREERS**

Prerequisite: None

Two Semesters

11<sup>th</sup> & 12<sup>th</sup> Grade (dual credit with Kirkwood and HLV Schools)

High school Health Careers class will meet the first two periods of the day all school year. During the second semester, students will give patient care in a clinic setting two days a week. This class will meet earlier than first hour but not before 8:00 a.m.

Class content will consist of exploring health careers and introduction to the health care system. This course will also explore health careers through course work, field trips, guest speakers and job shadows. Measuring vital signs, nursing assistant skills, basic anatomy and physiology of the body and muscular system, basic skills of a health care giver, and patient care in a clinical setting are major topics covered. This class includes college level course work with grades and attendance submitted to the high school. This is an opportunity to earn college credit in a Kirkwood health science program for this course.

All students must have a current physical and immunization record on file with the Kirkwood campus nurse prior to September 1. The Hepatitis B vaccinations are a requirement of this class. Students must get these on their own and they should start the series by July 1. Students are responsible for payment.

### **HEALTH I**

Prerequisite: None

First Semester

9<sup>th</sup> grade and up

Current issues relating to mental and emotional health, personal and family relationships, marriage, sexuality, reproduction, personal health and fitness, and nutrition are the main focus of the class. Classroom discussions, experiments and research are included.

### **HEALTH II**

Prerequisite: None

Second Semester

9<sup>th</sup> grade and up

Health is discussed in terms of the individual in a larger society. Substance abuse, prevention and control of diseases, community health, the environment, safety and survival skills, and consumer health are the topics researched and discussed.

These issues are extremely important in today's ever changing world in which the individual has a great effect on the future.

## **Family & Consumer Science**

### **FAMILY & CONSUMER SCIENCE**

Prerequisite: None

Two Semesters

Family and Consumer Science I is a full year, comprehensive course. The units of study include personal development, relationship skills, sexuality, textiles and clothing construction, personal and time management, consumer concerns, housing, child development, and nutrition and food preparation.

### **FOODS I**

Prerequisite: 11<sup>th</sup> and 12<sup>th</sup> Grade, others need approval

One Semester

The foods course is a one-semester course offered during the fall semester. It is a pre-requisite to the Foods II course offered during the spring semester. The course is an extensive study of nutrition, safety and sanitation. Some food preparation.

### **FOODS II**

Prerequisite: Foods I

One Semester

This one semester course in the area of foods and nutrition is an intense study of foods and their use. The pre-requisite is Foods I, so as to prepare the student in basic procedures and knowledge of nutrition. The semester is organized as follows: preparation of baked products, foreign cookery, preparation of food from all food groups, outdoor cookery, and careers in food and nutrition.

### **INDEPENDENT LIVING**

Prerequisite: None

One Semester

Independent Living is designed to instruct the individual, who will soon, be living on his or her own. The course has units in the following areas: financial management, housing, clothing care and repair, and nutrition and food preparation.

### **PARENTING AND CHILD CARE**

Prerequisite: 10<sup>th</sup> grade and up

One Semester

The care and development of children is studied from conception through age six. The

course covers the following areas of study: parenting, pregnancy and birth, caring for children, nurturing children, guiding children and parenting concerns. Students will participate in elementary classrooms and use a baby simulator to experience parenting. This course is recommended for those who expect to be a parent one day and any student interested in a career in child care.

### **HOUSING AND INTERIOR DESIGN**

Prerequisite: 10<sup>th</sup> grade and up                      One Semester

This course studies housing through curriculum that addresses the artistic components of design with the practical and fundamental needs of those inhabiting the space. The units covered include housing needs, consumer concerns, understanding construction, design, background areas, furniture, and applying design and construction principles. Students complete projects to demonstrate what they have learned.

### **FASHION & CLOTHING**

Prerequisite: 10<sup>th</sup> grade and up                      One Semester

Take a look at the fashion industry and evaluate your clothing decisions. The basic units covered in the first part of the course are:

Color & Design – the elements and principles of design and how they are used in clothing, person color analysis, and computerized figure analysis.

Fibers & Fabrics: textile, construction, finishes, and fabric care.

Students then choose areas of study for the second part of the course from the following: designing, sewing, wardrobe selection, consumer issues, merchandising, fashion careers and the workplace.

### **INDEPENDENT SEWING**

Pre-requisite: Fashion Design                      One Semester

This one semester offering is for students who completed Fashion & Design and would like to continue to work on design projects.

# **Industrial Technology**

## **Intro to ACE**

Prerequisite: None

Two Semesters (Freshmen)

This course is an introductory prerequisite for any other classes taken in the Industrial Technology area. It is designed to give students a basic introduction and overview to the topics available within the industrial Technology department. It will cover a wide range of study of the following areas; Architecture and Construction, Graphic Communication, Manufacturing, Power and Energy, and Transportation. Most units will include safety, hands on work, and in some areas a project. The curriculum is designed around exploration of these systems and their impacts on society. Students will also develop problem solving skills, explore career awareness, and relate technology to math and science.

## **Construction Material Processing**

Prerequisite: None

Two Semesters (Sophomore)

Students will continue developing team building skills introduced in Introduction to ACE. This is the foundational course for the architectural and construction cluster. Students will learn proper construction terminology and safe instruction in hand and power tool usage through project construction. Students will experience plan development, reading project drawings, material identification, cost estimation and production.

## **Construction Technology**

Prerequisite: None

Two Semesters (2 periods long) (Senior)

This course is designed to give students an introduction to construction systems in today's society. Students will be responsible for the construction of individual and/or group project(s) built throughout the year. The project(s) will be determined by the needs and wants of the class, community and school district. There will be a wide range of topics covered including; job-site safety, concrete construction, rough framing construction, roofing construction, finish construction, electrical and other topics within the construction cluster. Most assessments are done in class and are based on work completed, employability skills, and other skills determined by the instructor.

## **Architectural Plans and Specs**

Prerequisite: Offered through Kirkwood

Introduces the skills and methods for understanding and interpreting construction drawings and technical specifications for residential and commercial buildings.

## **INTRODUCTION TO ENGINEERING DESIGN (IED)**

Prerequisite: None

One Year

Engineering Design (IED) is designed to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. IED gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB-learning challenges students to continually hone their interpersonal skills, creative abilities and understanding of the design process. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

The course assumes no previous knowledge, as students will employ engineering and scientific concepts in the solution of engineering design problems. In addition, students use a state of the 3D solid modeling design software package to help them design solutions to solve proposed problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course. Students will also learn how to document their work, and communicate their solutions to their peers and members of the professional community.

## **PRINCIPLES OF ENGINEERING (POE)**

Prerequisite: To be successful in POE, students should be concurrently enrolled in college preparatory mathematics and science.

1 Year

Principles Of Engineering (POE) is a high school-level survey course of engineering. The course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Students have an opportunity to investigate engineering and high tech career POE gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills based upon engineering concepts. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

## **Civil Engineering and Architecture**

Prerequisite: Offered through Kirkwood

The major focus of this course is completing long-term projects that involve the development of property sites. As students learn about various aspects of civil engineering and architecture, they apply what they learn to the design and development of a property. The course provides teachers and students freedom to develop the property as a simulation or to students to model the experiences that civil engineers and architects face. Students work in teams, exploring hands-on activities and projects to learn the characteristics of civil engineering and architecture. In addition, students use 3D design software to help them design solutions to solve major course projects. Students learn about documenting their project, solving problems, and communicating

their solutions to their peers and members of the professional community of civil engineering and architecture.

**Residential Construction Lab: Offered through Kirkwood**

**Commercial Construction Lab: Offered through Kirkwood**

## **Physical Education**

### **HIGH SCHOOL PHYSICAL EDUCATION**

Prerequisite: None Two Semesters

The secondary school physical education instructional program will be a required program. The emphasis will be on improving the basic skills acquired in junior high with a development upon more individual and dual lifetime sports and fitness activities.

The primary intent of the program will be to provide each pupil with a mastery of diverse skills in lifetime sport and activates; a knowledge of rhythmic activities, sports, and dance; an ability to resist and endure fatigue; an understanding of the effect of exercise; a development of socially approved sports conduct; and an appreciation and desire to enjoy and regularly participate in physical activates throughout life.

## **Driver Education**

### **DRIVER EDUCATION**

Prerequisite: Minimum Age Requirement Summer Course

Driver Education includes a study of the Iowa Driver's Manual, basic laws and regulations in driver situations today. The importance of proper driver attitudes is stressed. The course consists of a minimum of 30 clock hours of instruction in the classroom and 6 clock hours of behind-the-wheel training in the car. Students register for this class in the spring when a special announcement is made to those eligible.

## **FINE ARTS EDUCATION COURSE DESCRIPTIONS**

## Art

### ART I

Prerequisite: None

Two Semesters

Introduces the high school student to advanced techniques regarding the elements and principles of art. The student will learn how to use these elements and principles to create successful two-dimensional and three-dimensional artworks. Regular units of study include: drawing (pencil, charcoal, pastels, etc.), painting (watercolor and acrylic), ceramics, and art history. Several units will rotate every four years – these include: printmaking, mosaics, plasters sculpture, etc. Emphasis placed on understanding the effectiveness of artistic and expressive organizational structures and functions.

### ART II

Prerequisite: Art I

Two Semesters

Continuation of previously studied skills and methods are reinforced and refined. The student will begin exploring individual style – understanding how characteristics and structures of art are used to accomplish commercial, personal, and communal artistic intentions. Regular units of study include: drawing, painting, ceramics, and art history. Additional units of study rotate every four years as noted above. Emphasis is placed on understanding how organizational principles and functions are used to solve specific visual art problems.

### ART III

Prerequisite: Art I and Art II

Two Semesters

Continuation of enhancing individual techniques and strategies. The student will employ an advanced understanding of intentions for creating works of art. The student will develop and demonstrate a deeper understanding of art history and relationships among works of art. Regular units of study include: drawing, painting, ceramics, and art history. Additional units of study rotate every four years as noted above. Art III students will also begin using technique knowledge to select between various progressive media. Emphasis placed on the understanding of visual, spatial, temporal, and functional values of artwork tempered by culture and history.

### ART IV

Prerequisite: Art I, Art II, and Art III

Two Semesters

Continuation of intense visual art studies in regard to developing personal and individual style of student. The student will use knowledge and experience in evaluating individual art, connecting with art history concepts, and communicating ideas through several forms of media. Regular units of study include: drawing, painting, ceramics, and art history. Additional units of study rotate every four years as noted

above. Art IV students will continue to utilize technique and strategy knowledge to select between various progressive media. Emphasis will be placed on understanding the various interpretations that can be used to understand works of visual art.

## **Music**

### **HIGH SCHOOL BAND**

Prerequisite: None

Two Semesters

High school band meets four days per week all through the school year. Students are also required to schedule a fifteen-minute private lesson per week for individual study. Marching band performs at all home football games, marches in parades, and may attend state contest. Concert band performs at three home concerts, state contest, and occasionally on tours or performs at state conventions. Band students may participate in jazz band, pep band, pit band, solo and ensemble contest, honor band, all-state tryouts, college festivals, conference band, and many other individual or small group opportunities.

Band enhances the socialization process. It teaches many necessary aspects of life: the ability to function in a group effort (cooperation and teamwork), responsibility, honor, competition, comradeship, and striving for perfection and excellence.

Our state reputation for excellence aids in maintaining the motivation in our students; thus, we are good ambassadors for our community and state.

### **HIGH SCHOOL CHOIR**

Prerequisite: None

Two Semesters

The choral program implements the basic techniques previously learned in general music classes and junior high choir. At the high school level, the student is ready for development of a more professional level of musicianship. The performance level of this group is based on the expectations of the state.

High school choir meets regularly during the week and students are required to attend 5 minute private lesson weekly to address and rehearse individual vocal technique. The high school choir performs at various events throughout the year and also participates in State Large Group competitions.

Student involved in high school choir have the opportunity to participate in several other vocal events throughout the year from small groups to individual performances.

The choral program works as an ambassador of music to the community by spreading

musical knowledge, enthusiasm for music, enjoyment of well-performed music, and pride in a quality program. The choir generates support for music and the school in general.

## **LANGUAGE ARTS EDUCATION COURSE DESCRIPTIONS**

### **ENGLISH 9**

Prerequisite: None

Two Semesters

English Nine, required of all HLV freshmen, is a foundation class upon which following English classes are built. Literature, language study, and composition are used to build communication skills in writing, speaking, listening, reading, and thinking.

### **ENGLISH 10 – COMPOSITION**

Prerequisite: None

One Semester

Tenth English is required of all students and is a Continuation of the foundation building begun in ninth Grade. Course work focuses on basic techniques of expository and persuasive writing as well as some creative writing.

### **ENGLISH 10 – SPEECH**

Prerequisite: None

One Semester

Speech is a one-semester course required of all HLV sophomores. Students will study the communication process; give a variety of individual and group presentations from informal talks to formal speeches, and practice group discussion and parliamentary procedure techniques.

### **ENGLISH 11**

Prerequisite: None

Two Semesters

English Eleven is a required course for all HLV juniors. English Nine and both semesters of English Ten must have been passed as a prerequisite. American literature is the foundation upon which students improve communication skills in reading, writing, speaking, listening, and thinking.

## **ENGLISH 12**

Prerequisite: None

Two Semesters

In English 12 students will continue to refine communication skills, language skills, and reading skills. This will occur through the study of career options, research projects, speeches, and the reading of a novel in the first semester. In the second semester students will work towards independence in reading and will sample some of the literature from western culture. The goal of this course is to prepare students to take on the challenges of the general education requirements at a post secondary institution or training program.

## **ENGLISH 12 – AP COLLEGE COMP**

Prerequisite: None

Two Semesters

Eligible to sit for the AP English and Composition test in the Spring.

The first semester of this English 12 class will focus on reading literature from the 20<sup>th</sup> and 21<sup>st</sup> centuries. Students in this class will read fiction, non-fiction, poetry, and drama that focus on issues relevant to today's society. In addition to reading, students will also write short essays, give presentations, and practice research skills. The second semester of English 12 will focus on preparing for the demands of college level writing. Students will write various essays and narratives to enhance critical thought processes and improve the quality of their writing.

## **PUBLICATIONS**

Prerequisite: None

Two Semesters

Publications is an elective course offered through the language arts department open to all students grades 9 – 12. Students will learn the basics of journalistic writing as they produce the War Chant which appears in the Pioneer Republican, and they will learn desk top publishing and digital photography as they produce the school yearbook The Warrior. Students may take the class more than once which will provide leadership opportunities for experienced staffers. This course does not count toward English credits needed for graduation. Creative writing and novel reading will be a component of this course as well.

## **FOREIGN LANGUAGE:**

### **SPANISH I, II, III, IV**

Pre-requisite: Appropriate level Spanish course(s)

Two Semesters

# **MATHEMATICS EDUCATION COURSE DESCRIPTIONS**

## **MATH CONCEPTS**

Pre-requisite: Recommendation of previous year's math teacher)

Two Semesters

Math Concepts builds a basic foundation for students with review of basic skills, problems, step-by-step examples, and applications. Major strands cover mastering operations, estimation and problem solving, introducing pre-algebra concepts, and applying math skills to real life situations. Learning and test-taking strategies are also included.

## **PRE-ALGEBRA**

Prerequisite: None

Two Semesters

Pre-Algebra is for students who need more instructions in mathematics before entering into a formal Algebra program. This course teaches basic concepts of mathematics and introduces algebra concepts in a step-by-step approach.

## **ALGEBRA I**

Prerequisite: None

Two Semesters

Algebra I provides the foundation in basic concepts and skills of Algebra. Algebra forces students to use higher-level thinking skills and helps students become successful mathematical problem solvers. Signed numbers, linear equations, exponents, graphing, square roots, polynomials, and factoring are some of the topics covered. Algebra I is a pre-requisite for Geometry and Algebra II. Algebra I is the first required course for a four year comprehensive mathematic foundation; therefore, it is normally an entry-level course.

## **GEOMETRY**

Pre-requisite: Algebra I (recommended C+ or above)

Two Semesters

Geometry introduces students to logic principles and formal proofs. Basic geometric definitions, polygons, triangles, circles, measurement, reflections, transformations, area, volume, and measurement are some of the topics covered in Geometry. Geometry follows Algebra I.

## **ALGEBRA II**

Pre-requisite: Algebra I (recommended C+ or above)

Two Semesters

Algebra II extends the concepts studied in Algebra I such as linear equations, graphs, imaginary and complex numbers, factoring, and polynomials. Algebra II introduces matrices, parabolas, functions, and quadratic relations. Algebra II follows Geometry. If the student has teacher permission, Algebra II could be taken before Geometry or concurrently with Geometry.

### **PRE-CALCULUS**

Pre-requisite: Algebra II and Geometry

Two Semesters

This accelerated course is designed for students interested in pursuing a math related curriculum in college. Topics include functions, series, sequences, matrices, complex numbers, conic sections, polar and parametric equations, linear regression, applications of trigonometry, and an introduction to Calculus. Since this course is designed to prepare students for Calculus, the focus will be on problem solving using mathematical models to represent real world situations. Technology will be incorporated throughout the curriculum.

### **ADVANCED PLACEMENT CALCULUS AB**

Pre-requisite: Successful completion of Pre-Calculus.

Two Semesters

The AP Calculus AB course teaches students to derive, understand and apply introductory calculus techniques. The curriculum includes limits, differentiation, integration and graphical analysis including asymptotic behavior and continuity. All of the calculus skills are taught towards real-life applications.

In AP Calculus AB, students will: review polynomials, logarithms, trigonometry, and functions, perform exercises on the graphing calculator involving the use of lists, tables, stat -plots, intersection points and the variables menu, study limits and their properties, learn differentiation and its applications, apply integration rules, use logarithmic and exponential functions, understand and use differential equations, apply integration for problem solving.

## **SCIENCE EDUCATION COURSE DESCRIPTIONS**

### **ADVANCED PLACEMENT BIOLOGY**

Pre-requisites: Biology and Chemistry. Instructor approval required also.

Two Semesters

This course is designed to be the equivalent of a college introductory biology course usually taken by science majors during their first year. Some AP students, as college freshmen, are permitted to undertake upper-level course in biology or to register for courses for which introductory biology is a prerequisite. Other students may have

fulfilled a basic requirement for a laboratory science course and will be able to undertake other courses to pursue their majors. AN end of the year cumulative test must be taken at a level determined satisfactory by the College Board to receive college credit for the course. The course will focus on the four “Big Ideas” of biology: Evolution and heredity, biochemical processes of life, storage and transmission of information within an organism, and interaction of living things.

### **ANATOMY AND PHYSIOLOGY**

Pre-requisites: Biology, with Chemistry strongly recommended.  
Two Semesters

In this course, the systems of the human body will be discussed in detail. Structure and function of all tissues and organs will be studied, with an emphasis on cause and effects of diseases on the body systems. This course is designed for students who plan on entering the medical field in college. While not required, it is strongly recommended to either have taken Chemistry previously, or to be simultaneously enrolled in both courses, as Biochemical processes of the body will be a major focus of the course.

### **BIOLOGY**

Pre-requisite: Physical Science Two Semesters

Biology is the study of living things and how they relate to their environments. The main areas of study for the course include Ecology, Genetics, Cell Structure and Function, Evolution, and Comparative Anatomy. Students will spend time learning about new scientific advancements, and build models while participating in hands on investigations.

### **CHEMISTRY**

Pre-requisite: Physical Science and Biology Two Semesters

In this course, students will learn the theoretical and actual chemical processes of everyday life, with an emphasis on atom structure, bonding, chemical reactions, and changes of state. Topics such as molarity, stoichiometry, acid and base chemistry, and reduction/oxidation reactions will be introduced. Students planning to attend a four year college are strongly encouraged to take Chemistry.

### **EARTH SCIENCE**

Prerequisite: None Two Semesters

Earth Science is a course focusing on the history of the earth and its processes. Geology, meteorology, hydrology and astronomy will be studied in this non-math based course. Students will identify and examine minerals, earthquakes, volcanoes, weather, oceans, planets and stars.

### **PHYSICAL SCIENCE**

Prerequisite: None

Two Semesters

Physical Science is a broad overview of topics in Chemistry and Physics. The very basic physical laws of the universe will be studied, as well as chemical structure and function. Topics will include atomic structure, chemical and physical changes, chemical reactions, motion, forces, energy, electricity and magnetism. The mathematical application of these ideas will be explored, therefore a basic understanding of Algebra would be beneficial.

### **PHYSICS**

Pre-requisite: Physical Science and Biology

Two Semesters

This course is a further exploration of the physical laws of the universe. With an emphasis on mathematical computation and inquiry based labs, ideas such as force, motion, energy, thermodynamics, waves, and modern physics topics will be explored. It is highly recommended students have a strong math background before enrolling in this course. Advanced algebra ideas, as well as trigonometry, will be used extensively.

### **PRINCIPLES OF ENGINEERING (POE)**

Prerequisite: To be successful in POE, students should be concurrently enrolled in college preparatory mathematics and science.

1 Year

Principles Of Engineering (POE) is a high school-level survey course of engineering. The course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Students have an opportunity to investigate engineering and high tech career POE gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills based upon engineering concepts. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

### **INTRODUCTION TO ENGINEERING DESIGN (IED)**

Prerequisite: None

One Year

Engineering Design (IED) is designed to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts,

engineering standards, and technical documentation. IED gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB-learning challenges students to continually hone their interpersonal skills, creative abilities and understanding of the design process. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

The course assumes no previous knowledge, as students will employ engineering and scientific concepts in the solution of engineering design problems. In addition, students use a state of the 3D solid modeling design software package to help them design solutions to solve proposed problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course. Students will also learn how to document their work, and communicate their solutions to their peers and members of the professional community.

## **SOCIAL STUDIES EDUCATIONAL COURSE DESCRIPTIONS**

### **World History**

Prerequisite: None

Two Semesters

World History is a semester long course offered in the first semester. The purpose of the course is to introduce ninth grade students to the earliest people and civilizations. Focus is given to the development of the first civilizations followed by the spread culture and life throughout Africa, Asia, and Europe.

### **Early American History**

Prerequisite: None

One Semester

Early American History is a semester long course offered in the second semester. This course is typically taken immediately after World History. This course begins with early exploration leading to the colonization of America. Following colonization, students will learn about the impact of colonization on Native Americans, wars fought between European countries over the Americas, and the American Revolution. This course ends in the pre-Civil War Era where Modern American History begins.

### **Modern American History**

Prerequisite: None

One Semester

Modern American History is a two credit, year-long course. Modern American History typically follows Early American History as it begins with the Civil War. This course

focuses on America's transformation into a modern world power and includes an emphasis on the wars America has been involved in, patterns in American society, and ends with the coverage of modern American topics.

### **American Government**

Prerequisite: None

One Semester

American Government is a one semester course offered in the first semester. This course is generally recommended for upperclassmen. Government students will have an early focus on the basic structure and functions of the American Government. Coverage throughout the course will connect issues in America to the government of the past and present. Students will also be given the opportunity to learn about modern politics to gain a familiarity heading into future citizenship.

### **Economics**

Prerequisite: None

One Semester

Economics is a one semester course offered during the second semester. This will be broken down into coverage of Microeconomics and Macroeconomics. Students will be challenged to apply what they know about local business operations and applying economic concepts. This will grow into learning about the national and international concepts connected to Economics.

### **Contemporary Problems**

Prerequisite: None

Two Semesters

Contemporary Problems is a two credit, year-long course. The purpose of the course is to familiarize students with issues in the world around them. Much of the course will focus on current news topics in the local, national, and international communities. Contemporary Problems will challenge students' views on topics and attempt to bring clarity to things taking place in the world they may not understand.

### **Psychology**

Prerequisite: None

One Semester

Psychology is a one credit course that is offered in the first semester. Psychology students will study the founders and history of Psychology, human development, emotion, and many other topics. Psychology students will be challenged with applying theories and concepts covered to themselves, family members, and friends to gain a better understanding of Psychology.

## **Sociology**

Prerequisite: None

One Semester

Sociology is a one credit course that is offered in the second semester. This course will provide students with a foundation of Sociological concepts and ideas. Sociology students will learn about past and current experimentation and have the opportunity to conduct their own experiments. Students will gain insight into the relationships between people they experience in the variety of settings society offers today.

