

ARCOLA HIGH SCHOOL

Course Descriptions

2010-2011

AGRICULTURE

Introduction to Agriculture (no prerequisite)

This orientation course provides an opportunity for students to learn how the agriculture industry is organized; its major components; the economic influence of agriculture at state, national and international levels; and the scope and types of job opportunities in the agricultural field. Basic concepts in animal science, plant science, soil science, horticulture, agribusiness management, agricultural mechanics, and aquaculture science and technology will be presented. Improving computer and workplace skills will be a focus. Participation in FFA activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts. *This class is open to all students.*

Biological Science Applications in Agriculture (sophomores, juniors, seniors)

This course is designed to reinforce and extend students' understanding of science by associating basic scientific principles and concepts with relevant applications in agriculture. Students will examine major phases of plant growth and management in agriculture and the specific biological science concepts that govern management decisions, as well as examine many phases of animal agriculture and specific biological science concepts that govern managing decisions in the animal industry. Some sample topics include: agriculture research methodology, growth and development of animals (embryology, ethnology, nutrition, and immunity systems), processing animal products (preservation, fermentation and pasteurization). Students will maintain an SAEP and be encouraged to be a member of the FFA organization. *BSAA meets lab science entrance requirements to Illinois universities and receives a science credit at Arcola.*

Agriculture Business Management (juniors, seniors)

This course will develop students' understanding of the agricultural industry relating to the United States and world marketplace. Instructional units include: marketing and trading of agricultural law, taxes, governmental regulations and policies, insurance, financing, sales and marketing, and advanced computerized record keeping. Participation in FFA activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

Agricultural Mechanization and Technology (must have passed introduction to Ag Industry)

This year-long course is designed to give students an overview of mechanics that are used in an agricultural setting. Time will be given to study small engines, electricity and welding. The small engines component will teach students to select, operate service, maintain, repair, and overhaul small engines. It will develop knowledge and skills in preventative maintenance, principles of operation, systems of the engines, use of test equipment and tune-ups. The electricity component will include instruction and practice in inspecting, maintaining, repairing and diagramming circuits and equipment. In addition, students will learn how electric motors and controls are used in agriculture to regulate temperature, ventilation, lighting and more. The welding section will cover arc, oxy-acetylene, MIG, and plasma-arc cutting. Students will maintain their Supervised Agricultural Experience Program and be encouraged to be a member of the FFA Organization.

Agricultural Carpentry (must have passed Agricultural Mechanization and Technology) juniors, seniors

Students are introduced to hand, portable electric tools, and the basic woodworking machines used in the construction and production industries. The class work includes a wide variety of "hands-on" activities involving the cutting, joining, fastening, forming, and finishing of wood and other similar materials. Each student will construct several take-home projects. In addition to the manipulative skills, students will learn safe work habits, how to read simple drawings, and other related information. *Students will be required to reimburse the school for the materials used for projects.*

ART

Art I (no prerequisite)

This course is open to beginning students with limited art experience in the classroom setting. Students must show a desire to learn the process, materials, tools and equipment used in creating works in the field of Visual Art. A strong foundation will be built focusing on both the Elements and Principles of Design through a series of 2-D and 3-D art projects. As time allows, students will be exposed to drawing (graphite, colored pencils, and markers), painting (watercolor, tempera), fiber arts (weaving, braiding, macramé), ceramics (hand-building, throwing, decorating), sculpture (clay, paper, plastic), assemblages (collages, photomontages). Using computer technology as a graphic art and research tool will be introduced. Students will learn to appreciate the function art plays in our world and personal lives, past, present and future. *Grading will be based on individual effort, technique, craftsmanship and creativity.*

Art II (must have completed Art I with C or above average and/or approval of instructor)

This course is open to students who have demonstrated a desire to create works of art. Emphasis will be on building a stronger working knowledge of the Elements and Principles of Design through a more in depth study of studio media, processes, tools and equipment. Building on knowledge acquired in Art I, students will work in the areas of drawing (graphite, colored pencils, markers, pen and ink, and pastels), painting (watercolor, tempera, acrylic), fiber arts (weaving, braiding, macramé), ceramics (hand-building, throwing, decorating), sculpture (clay, paper, plastic, beaded totems), assemblages (collages, photomontages) and mixed media. Using computer technology as a graphic art and research tool for the visual artist will be incorporated into hands-on projects as appropriate. Building a deeper appreciation for the function art plays in our world and personal lives in the past, present and future will be emphasized. Students will be encouraged to experiment with processes and media appropriate to their individual skill level. Individual creative expression will also be encouraged. *Grading will be based on individual effort, technique, craftsmanship and creativity.*

Art III (must have completed Art I and II with C or above average and/or approval of instructor) juniors, seniors

This course is open to students who have demonstrated a desire to create works of art. Emphasis will be on continuing the creative and skill building processes developed in Art I and II through developing a deeper working knowledge and understanding of the Element and Principles of Design in the creative process. Students will continue to work in the areas of drawing, painting, fiber arts, ceramics, sculpture, assemblages, mixed media and computer generated art. Students will further develop an appreciation for the function the arts play in our world and personal lives, past, present and future. Experimentation and creativity will be emphasized as students increase their knowledge of media, processes, tools and equipment. *Grading will be based on individual effort, technique, craftsmanship and creativity.*

Art IV (must have completed Art I, II, and III with a C or above average and/or approval of instructor) juniors, seniors

This course is open to gifted students who have a demonstrated desire to continue to create works of art of greater complexity in skill and creativity. Emphasis will be on creative and skill building processes through executing works in both 2-D and 3-D media. Greater freedom of creative expression and experimentation will be encouraged according to each student's individual skill level and interest. Art portfolio preparation will be emphasized for students planning on further schooling in the art field. More in depth computer generated art will also be emphasized along with use of the computer as a tool for research. *Grading will be based on individual effort, technique, craftsmanship and creativity.*

BAND (prerequisite: junior high band and/or director's approval)

This instrumental program is designed to offer students the opportunity to study and perform various styles of music. At the high school level our focus is mainly on performance. Examples include: concerts, festivals, contests, solos and honor bands. Extra rehearsals are often called outside of class, especially during marching season. A summer camp is also held at the end of the summer

and is required. The band program at the high school level consists of many levels, including marching band, concert band, pep band and jazz band (optional).

BUSINESS

Business Concepts I (1 semester, no prerequisite)

In this course, areas of study include an orientation to business, marketing, economic systems and management concepts in the following units of study: basic business and economic principles, types of business organizations, organization and the use of financial data, federal banking regulations, and Careers in Economy.

Keyboarding I (1 semester, no prerequisite)

This is a course planned to develop basic skills in keyboarding techniques for typewriter style keyboards. Major emphasis in the first semester is placed on keyboarding technique, proofreading and correcting errors. During this course emphasis is also placed on formatting. Production of copies that meet business standards is also stressed.

Keyboarding II (1 semester, prerequisite Keyboarding I)

This course continues the development of skills from Keyboarding I. Production work typically includes letters, manuscripts, statistical tables and a variety of business forms. Students are also introduced to basic computer concepts.

Accounting I: *Elective* (2 semesters, no prerequisite) sophomores, juniors, seniors

Accounting I is a course that is of value to all students pursuing a strong background in business, marketing, and management. This course includes planned learning experiences that develop initial and basic skills used in systematically computing, product control records including the paying and receiving of money. Instruction includes information on keeping financial records, summarizing them for convenient interpretation, and analyzing them to provide assistance to management for decision making. In addition to stressing basic fundamentals and terminology of accounting, instruction provides initial understanding of the preparation of budgets and financial reports, and career opportunities in the accounting field. Processing employee benefits may also be included. Practice sets with business papers may be used to emphasize actual business records management.

Accounting II: *Elective* (2 semesters, prerequisite Accounting I) juniors, seniors

This course builds upon the foundation established in Accounting I. This course is planned to help students to develop deeper knowledge of the principles of accounting with more emphasis being placed on financial statements and accounting records. It is a study of previously learned principles as they apply to the more complicated types of business organizations, partnerships, corporations, branches, etc. The students may become familiar with such specialized fields of accounting as cost accounting, tax accounting, payroll accounting, and others. Simulated business conditions may be provided through the use of practice sets.

Computer Concepts I (1 semester, prerequisite Keyboarding I)

This course is designed to develop the students' skills in the Microsoft Office suite involving word processing and spreadsheets. Students are exposed to the most frequently used computer applications and their integration.

Computer Concepts II (1 semester, prerequisite Keyboarding I)

This course is designed to develop the students' skills in the Microsoft suite involving databases, presentation software, desktop publishing and web page design.

CHORUS

High School Chorus is an elective class that is open to all high school students. The purposes are to expose students to many kinds of music, to help students find music they would not discover on their own, and to help students come to enjoy music for its own sake. Students are given more

opportunities to sing as soloists or in ensembles, to grow in performing ability in large and small groups, and to take part in festivals, contests, and other musical events.

DRIVER EDUCATION

Sophomores and some freshmen reaching the age of 16 are admitted to driver education. There are usually three classroom sections per year and students, on the basis of age and availability from study hall, are assigned behind-the-wheel driving instruction. Most students complete both phases of driver education before the completion of their sophomore year. Although an attempt is made to get most students finished before their sixteenth birthday, the school or state makes no guarantee of such completion. There is a \$20.00 state fee per student. There is a \$50.00 school fee that needs to be paid before the blue slip is issued.

English I (no prerequisite – 2 semesters – required for graduation)

This writing-intensive course combines a study of and practice in the elements of written language with the study of literature. This course introduces the fundamental skills of effective written and oral communication including style, structure, and language appropriate for various purposes and audiences. Students will practice developing structural variety of sentences and paragraphs and following standard grammar and usage rules while writing various multi-paragraph essays. As part of the course work, students will study short stories, novels, poems, plays, and nonfiction works to understand the structure of various forms of literature, comprehend and apply literary terms, and develop an awareness and insight into life situations. Students will also study vocabulary and utilize technology to develop multimedia products and presentations.

Four major areas:

- 1) Literature: a study of short stories, drama, poetry, and the novel;
- 2) Grammar, Usage, and Mechanics: a study and review of traditional conventions;
- 3) Vocabulary: a study of word parts, pronunciations, and meanings of assigned words;
- 4) Writing: a continuing study of the conventions used in writing skills (expository, creative, narrative, persuasive)

English II (prerequisite: English I – 2 semesters – required for graduation)

English II is a natural extension of English I designed to take students to the next level of language study. This writing-intensive course combines language study with literature. This course develops effective written and oral communication skills, including correct grammar and structure, as well as writing for a variety of purposes and audiences. Students will extend the writing and language skills developed in English I while writing essays varying from basic length to an involved research paper, including proper source citations (MLA format). The literature covered will include a variety of works spanning different cultures and time periods, various themes and purposes, and genres. Students will study how literary elements and techniques, (such as symbolism, connotation, etc.), are used to convey the author's theme. Students will also expand their knowledge of word denotations and reading strategies to improve their comprehension and fluency as readers. A concentrated study of the literature of the Holocaust is also a major component of English II. During this unit, students will read poetry and autobiographical accounts of the Holocaust, complete several creative writing projects, and develop multimedia presentations

English III (2 semesters, required for graduation)

This class is a writing-intensive, junior-level course focusing on grammar, punctuation, research and persuasive writing. Students will also be introduced to, and explore: film studies, mass media, advertising, and business communication. The course also includes an AR and a vocabulary component. Work at a junior-level or higher will be expected.

Speech (1 semester, juniors and seniors)

This is a course in basic oral communication skills designed to help students become more confident in their public-speaking skills. Students will be expected to research, compose, and deliver various types of speeches, including: impromptu, informative, persuasive, and demonstrative. A debate component may also be included. Delivering speeches is required to pass, as written-work is a small portion of students' grades. Participation in school assemblies may be required.

Advanced Speech (1 semester, juniors and seniors, prerequisite: completion of speech with a semester grade of 75% or higher, and/or approval of instructor)

This is an advanced course in public speaking, focusing on argumentation and debate. Students will improve the basic public-speaking skills practiced in Speech, in an effort to become effective persuasive speakers. This is also a college-preparatory course.

Communications 101 (1 semester, junior and seniors)

This is the study of how we communicate in society, from early newspapers, radio, and television, to today's Intern, blogs, wiki, and other emerging forms of communication. Legal issues, such as freedom of the press and freedom of speech, and privacy rights will also be explored. Students will be expected to actively participate in group discussions, as well as complete written work, tests and quizzes.

Journalism & the Yearbook (1 semester, students can receive credit for up to 2 semesters of Journalism & the Yearbook)

This is a writing-intensive course concerned with the principles of journalistic writing and how those principles can be applied to the creation and theme of the school yearbook. Basic photojournalism and desktop publishing may also be addressed. Enrollment in the course requires that students join the AHS Torch (yearbook) staff.

College Prep English IV (Prerequisite: English III)

College Prep English IV is strongly recommended for university bound students who expect to acquire the fundamental skills needed for university English courses. Writing instruction will focus on the development of structure, style, and the elaboration of ideas, as well as, effective organization. In addition, students will also enhance their use of correct mechanics through grammar exercises and a thorough examination of their own writing. Emphasis on advanced reading strategies and composition techniques integrated with a study of selected American, British and other world literature. Selections include fiction, poetry, drama, literary nonfiction, and informational texts.

Literary Visions (1 semester, juniors and seniors)

This is a basic literature course focused on modern and classic authors. Genres covered include: horror, suspense, and detective fiction. Students will read short stories, poetry, and novels. Course grades will be based on homework, tests, and quizzes.

Advanced Literature I / Advanced Literature II (1 semester each, seniors)

These courses are senior-level college preparatory, literature courses focused on classic and modern American authors as well as modern authors from around the globe. Genres covered include: horror, suspense, gothic, detective fiction, sports fiction, and children's literature. Students will also read short stories, poems, parts of novels, and plays such as *Macbeth* and *Oedipus the King*. Modern literature will also be covered using recent bestsellers as the texts.

FOREIGN LANGUAGE

Spanish I

The purpose of first year Spanish is to introduce students to some basic communication skills in the Spanish language. At the beginning of the year, time is spent learning the basic sound system of the language along with some very basic vocabulary expressions and language structures. Throughout the rest of the year, listening, speaking, reading and writing skills are further developed

with a major emphasis on developing the ability to understand and communicate in the target language. By the second semester, students are expected to speak mainly Spanish in the classroom. During the first year, students progress in their acquisition of vocabulary and basic language structures from simple to more complex. While students are taught basic verb forms and grammatical structures, the emphasis is on learning basic vocabulary word groups having to do with daily life at school and home. In doing this, they learn about the daily lives, customs and traditions of their Hispanic peers. Thus, along with language concepts, students begin to develop an understanding of the customs, arts, literature, history and geography of Hispanic cultures. They also begin to learn how to use the target language to make connections and reinforce knowledge and skills across academic, vocational and technical disciplines.

Spanish II (prerequisite: Spanish I and/or approval of instructor)

Level two is a continuation of vocabulary development and basic language structures. While students progress in their acquisition of vocabulary and the development of listening, speaking, reading, and writing skills, greater emphasis is placed on grammar. A variety of verb forms and tenses are introduced at this level. Students are expected to master these in oral and written situations. Comprehension of spoken Spanish, oral participation, cultural, and cross-curricular concepts continue to be stressed in the language learning process. Toward the end of the year, students should find that they possess skills adequate to use and understand Spanish in a wider variety of situations conversationally, in writing and in reading.

Spanish III (prerequisite: Spanish I, II and/or approval of instructor)

The third level concentrates on increased fluency in the use of the basic vocabulary, predicate verb tenses and structures already learned. Vocabulary building increases, moving beyond discussions of daily life and home to discussions of travel, leisure, culture and work-related activities. Language learning is a progressive skill. Levels one and two introduce much new material. Level three provides more opportunities for practice and advancement. Students practice orally through class discussion and oral presentations. Writing activities include letters, descriptions, reports, personal observations and reactions. Both oral and written reports require some research.

Spanish IV (prerequisite: Spanish I, II, and III and/or approval of instructor)

Level Four concentrates on increased fluency in the use of basic vocabulary, tenses, and structures already learned. A few final verb tenses and structures are introduced. Vocabulary building continues. As with Level Three, much opportunity for practice and advancement is provided through readings, class discussions, oral presentations, drama, and written assignments. Student reading sources become less limited as we move from the text to newspapers, magazines, and literature from the Hispanic cultures. Here the emphasis is on "putting it all together" and on developing increasing more sophisticated communication skills orally, in reading, and in writing.

Spanish V (prerequisite: Spanish I, II, III, IV and/or approval of instructor)

This class can only be taken under special circumstances. There has to be an agreement between the student, instructor and administrator.

HEALTH (required for sophomores)

Health is a required semester class for all sophomores. A passing grade is required to meet state requirements. The major areas of study are: first aid and survival techniques, mental health, drugs, alcohol and tobacco abuse, and the control and prevention of communicable and non-communicable diseases. The major emphasis of the class is on preventative measure to insure good health.

HEALTH OCCUPATIONS (\$250 fee for course)

This is a year course for a student wishing to explore various health careers. This course is taught on site at Sarah Bush Hospital. Students are responsible for their own transportation to and from the hospital. A ten-week practicum of the student's choice will finish the coursework. A student must be able to allow a three period block of time in their daily schedule. Students will complete the requirements to be a certified nurse aide.

HOME ECONOMICS/FAMILY AND CONSUMER SCIENCE

Orientation to Family and Consumer Science: 2 semesters (freshmen, sophomores)

***This should be taken before any other home economics courses.**

This is the first course for all programs. It is designed to present basic subject matter in the following areas: resource management; food and nutrition; housing, furnishings, and equipment; human development, interpersonal and family equipment; and introduction to the world of work. Learning experiences assist students in understanding themselves, their roles in today's society and the nature of homemaking and other home economic related careers.

Food and Nutrition I: 1 semester (sophomores, juniors and seniors) (May only be taken once)

This course includes basic classroom and laboratory experiences needed to develop knowledge and understanding of basic good principles and applied nutrition for people of all ages. The course content centers around the following areas: promoting food service and preparation management using the decision-making process; meeting basic needs by applying nutrition concepts; meeting health and safety needs in planning, and preparing and serving food; maximizing resources when planning/preparing/serving food; promoting hospitality in food practices; and analyzing individual and a family nutritional needs in relation to change. Information related careers in foods and nutrition is incorporated throughout the course.

Foods and Nutrition II: 1 semester (sophomores, juniors and seniors) (may only taken once)

In the second orientation level foods course, more attention is paid to food selection and preparation for special circumstances and dietary needs. Laboratory sessions are devoted to preparation of foods with specific emphasis; careers in foods and nutrition, influences on food customs, diet and health, current nutritional issues, planning for special food needs, safety of foods, food purchasing, prevention of food-born illnesses, conservation in providing food and food preservation. The emphasis to food service occupations is stressed. This course provides an introduction to commercial food service, preparation and management. **Commercial Foods I: 1 semester (juniors and seniors, may only take once)**

This course is designed to provide students interested in a career in food service with the information and practical experiences needed for the development of food service job related competencies. The students receive laboratory experiences and understanding of commercial food service equipment, preparing food in quantity and serving food. Safety and sanitation are emphasized. The course provides students with the information of professional careers in the food industry. We will explore novels that are mystery based with food as their background.

Commercial Foods II: 1 semester (juniors and seniors, may only take once)

This course is a continuation of Commercial Foods I and is designed to provide students interested in a career in food service with the information and practical experiences needed for the development of food service job related competencies. The students receive laboratory experiences and understanding of commercial food service equipment, preparing food in quantity and serving food. Safety and sanitation are emphasized. The course provides students with the information of professional careers in the food industry. We will explore novels that are mystery based with food as their background.

Adult Living: 1 semester (juniors and seniors, may only take once)

This course is designed to assist individuals and families in achieving life satisfaction through responsible participation as adults in the home, community and workplace. Emphasis is placed on the development of prevention strategies which will assist individuals in responding to situations in terms of their identified values and goals. The course content includes the following areas: developing short and long-range plans, demonstrating goal-setting and decision-making skills; evaluating and adapting basic needs to assume roles and responsibilities, recognizing and following health practices that assist in coping, selecting and using resources to enhance individual growth and development; developing effective relationships to promote communications with others; and evaluating family and career changes as to the impact on individuals.

Child Development: 1 semester (juniors and seniors, may only take once)

This course emphasizes learning experiences which help students gain knowledge and understanding of the intellectual, physical, social and emotional development of children from conception through adolescence. The course content centers on the following duty areas: managing and organizing child development by applying decision-making and goal-setting skills; promoting child development by applying physical, social and emotional development of children from conception through adolescence. The course content centers around the following duty areas: managing and organizing child development by applying decision-making and goal-setting skills; promoting child development by applying physical, social, intellectual and emotional principles; practicing health and safety standards for children; providing experiences which encourage children to maximize resources; encouraging human relations skills in children; and evaluating family career changes in relation to impact on children. Information related to careers in child care is incorporated throughout the course.

Human Development: 1 semester (May only be taken once)

The emphasis in this course is on human development from adolescence through maturity and on relationships with others. Emphasis is also placed on meeting physical and psychological needs. Practical experiences related to providing for these needs are included through a variety of activities with groups of young children, families, senior citizens, and others. Course content includes these broad areas of emphasis: career opportunities in human development, growth and development, self understand, relationships with family members and relationships with others. Course content includes these broad areas of emphasis: career opportunities in human development, growth and development, self-understanding, relationships with family members and relationships with others. Information on a variety of career opportunities within the human development field is incorporated throughout the course. This course will be offered alternate years.

Living Environment: 1 semester (juniors and seniors) (May take only once)

Learning experiences are designed to provide students with the basic knowledge and skills needed to select, acquire, maintain and manage living environments that meet the needs of the occupants. The selections and care of housing and furnishings are related to factors such as social-economic conditions, individual tastes, psychological effects, aesthetic values, safety, and sanitation and energy conservation. The course content includes the following duty areas: locating and managing housing using goal setting and decision-making skills; evaluating living space to meet basic needs; creating and maintaining living environments; ensuring health and safety, selecting appropriate resources in creating living environments; determining the impact of the individual and /or group on living environments; applying housing and home management choices relating to changing family/individual and career patterns. Emphasis will be placed on the application basic management principles as they relate to the environment. *This class will emphasize what it will take for students going to college, the work force, or living on their own to establish living quarters.*

Parenting (May only be taken once)

This course is designed to help students think through the responsibilities satisfactions and stresses of parenthood. Many types of parenting situations are examined. Stress prevention and management and the work of community agencies that help parents deal with various types of parenting crisis are emphasized. The course content includes the following areas; managing and organized parenting by applying decision-making and goal-setting skills; applying the basic principles of the parenting process; practicing health and safety standards as related to parenting, providing experiences which encourage parents and children to maximize resources, encouraging human relation skills in children/adolescents and evaluation impact on parenting of family and career changes. Special attention is given to the needs of teenage parents and to the importance of readiness for parenthood.

INTERRELATED CO-OP

Interrelated Cooperative Education is designed for senior students interested in pursuing careers in various occupations. Students may be released from school for their paid cooperative education work experience and must participate in 200 minutes per week of related classroom instruction. Classroom instruction focuses on providing students with job survival skills and career exploration

skills related to the job and improving student's abilities to interact positively with others. The course content includes the following broad areas of emphasis: further career education opportunities, planning for the future, job-seeking responsibilities, economics and the job, organizations, and job termination. For skills related to the job, refer to the skill development course outlines and the task list of the desired occupational program. Written training agreements and individual student training plans are developed and agreed upon by the employer, student and coordinator. The coordinator, student and employer assume compliance with federal, state and local law and regulations. Under rare circumstances juniors who are pursuing their long-term career goal may take co-op with special permission.

MATH (3 years of math required for graduation/ must include both algebra and geometry)

Basic Algebra

Basic Algebra is a comprehensive Algebra 1 program that uses a clean lesson design with many detailed examples and straightforward narration that make Algebra 1 topics inviting and Algebra 1 content understandable. This class is designed for students who are challenged by high school mathematics

Advanced Algebra I

This is an advanced course that is designed to cover the basic language of Algebra as well as challenge the students in new areas of applied algebra skills. Units will include: expressions and equations, linear functions, polynomials and nonlinear functions including factoring, radical and rational functions and possibly some data analysis. This is the first course for the students that want to take Math IV.

Geometry Concepts (prerequisite: Basic Algebra or Advanced Algebra I)

This course is designed to help students discover, learn and apply geometry. Students will be challenged to make connections from concrete examples to abstract concepts. Units will include: relationships between lines and angles, triangles and their related segments and angles, quadrilaterals, circles with their related segments, angles, area and volume.

Geometry (prerequisite: Advanced Algebra I)

This course is designed to help students discover, learn and apply geometry. This course will include study in four major areas. First, students will study lines and angles, reasoning and proof, and parallel and perpendicular lines. Second, the area of study is triangular congruency, similarity, proportionality and their relationships. Third, students will study quadrilaterals and circles. Last, students will study the area of polygons and circles and the surface area and volume of three dimensional figures.

Algebra II (prerequisite: Advanced Algebra I and Geometry with a C or better and/or approval of the instructor)

This is an extension and intensification of the topics covered in Algebra I. The course work includes linear, quadratic, polynomial, rational, and exponential equations, inequalities, functions and graphs; system of equations; sequence and series; and probability. In addition, the student discovers the methods for finding roots of equations and receives an introduction to matrices, logarithms and trigonometry. A major emphasis is placed upon encouraging the student to do independent thinking.

Math IV (prerequisite: Algebra II with a C or better and/or approval of the instructor)

This course provides a thorough study of relations, functions, graphs, trigonometry and conic sections. In addition, the students will receive an introduction to vectors, polar coordinates and calculus. The major purpose of this course is preparation for college calculus.

OTHER

Life Skills Food-Special Education: 2 semesters (recommendations of this class would be with special education instructor and guidance counselor)

Living Skills is offered to students who are "at risk". It is taught by special education staff and offers individual instruction in areas of organization, presentation and development of information as required in other courses. Computer skills and other technology skills are used to improve time management. Strategies are provided to get along with others and learn coping skills to function as a student and employee. Assistance will be provided to a student including how to write a resume, find a job, rent a car and purchase insurance. This is a student based class that is developed to meet the individual students' needs.

PHYSICAL EDUCATION (P.E.)

Physical Education is a course required for students in grades 9 – 12. Athletic P.E. may be taken instead to meet this requirement. Students will dress daily in attire appropriate for the daily activity (i.e. shorts, t-shirt, sweats, tennis shoes) at the discretion of their instructor. P.E. will provide students with daily physical activity in order to promote good health and well-being. Students will learn about and participate in games and activities that they can use in their everyday lives. Teachers may implement their own grading policy, but each student will receive a letter grade to be calculated into their GPA. All students must pass 4 years of P.E. or Athletic P.E. in order to meet graduation requirements.

ATHLETIC PHYSICAL EDUCATION

This course differs from Physical Education. It is designed to enhance athletic performance through weight training, conditioning, nutrition, and knowledge of how the body responds to those things. Classroom instruction will be utilized to study nutrition and physiology. Games and activities will be played but the major emphasis will be on enhancing the performance of our athletes in an educational environment. Athletic P.E. can be taken in place of Physical Education.

SOCIAL STUDIES

Regional Geography – no prerequisite

In this course, students analyze the relationships between people, places, and environments. Students use problem-solving and decision-making skills to ask and answer geographic questions as well as to determine the geographic factors which have influenced past and present events. A significant portion of the course will center around physical processes, places, and regions, the environment, the political, economic and social processes that shape cultural patterns, human systems such as population distribution and urbanization patterns, and the economic conditions which have led to and reinforced the developed and developing world.

World History – sophomore, junior or senior

The purpose of this course is to provide students with a thematic study of world history. Students study and answer questions surrounding major themes in history including culture and civilization, government, economics, belief systems, cooperation and conflict, science and technology, and humanities. This approach allows students to make connections between historical and current events. This course is enriched with various activities which help students learn social studies skills as well as historical content. These activities include computer technology, simulations, class-discussions, primary source readings, writing, and other authentic assessments.

American History/Government (juniors, seniors – required for graduation)

Colonization to Reconstruction (1607 – 1877) In this writing Students examine the historical and intellectual origins of the United States during the Revolutionary and Constitutional eras. They learn about the important political and economic factors that contributed to the outbreak of the Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution. Students also study the basic framework of American democracy and the basic concepts of America government such as popular sovereignty, federalism, separation of powers, and individual rights. Students study America's westward expansion, the establishment of political parties, and economic and social change. Finally, students will learn about the growth of sectional conflict, how sectional conflict led to the Civil War, and the consequences of the Civil War, including Reconstruction.

Government: The primary objective of this required course is to prepare the student for decision-making within the framework of the American political system. The course begins with an overview of basic concepts found in all political systems, the philosophical background which led to our constitutional development, and the basic concepts found in the Constitution. The executive, legislative, and judicial branches of the federal government, including current issues of interest such as foreign affairs, will be studied. In addition, students study the fields of civil rights and liberties, political parties and suffrage, the Illinois Constitution, and state and local government. Each student must pass a United States Constitution test as well as an Illinois Constitution test.

Advanced American History (sophomore, junior, senior)

Reconstruction to present (1877 – Present) Students will analyze the causes and consequences of the Industrial Revolution and America's growing role in diplomatic relations. Students will study the goals and accomplishments of the Progressive movement and the New Deal. Students will also learn about the various factors that led to America's entry into World War II as well as the consequences of World War II on American life. Finally, students will study the causes and course of the Cold War, important economic and political changes during the Cold War, including the Civil Rights movement, and recent events and trends that have shaped modern-day America.

American Problems (juniors, seniors)

This year long advanced and *elective* class for juniors or seniors explores issues facing contemporary American Society. The objectives include providing students with an awareness of how an issue develops into a social problem as well as in-depth investigation of specific problems. The library and computer labs are used extensively for research on various projects such as debates, research papers, and timelines.

Psychology (seniors, 1 semester)

This advanced and *elective* course for seniors offers students an introduction to an overview of principles of psychology. These principles include; abnormal behavior, psychological development, changes as people age, and various psychological theories. Extensive use of the library and computer lab offer research opportunities.

Sociology (seniors, 1 semester)

This advanced and *elective* course for seniors allows students to explore elements of sociology including social classes, taboos, and social interaction between and within ages, cultures and genders. Students will also study social customs and how they change over time.

Consumer Education (required for seniors, 1 semester)

Students are introduced to the following concepts for Financial Management in the future. The students will apply reliable information and systematic decision making to personal financial decisions which will include: taking responsibility for personal financial decisions, finding and evaluating financial information from a variety of sources, summarizing major consumer protection laws, making financial decisions by systematically considering alternatives and consequences, and developing communication strategies for discussing financial issues.

Students will also use a career plan to develop personal income potential which will include: exploring career options, identifying sources of personal income, and describing factors affecting take-home pay. Students will organize personal finances and use a budget to manage cash flow which will include: developing a plan for spending and saving, developing a system for keeping and using financial records, describing how to use different payment methods, applying consumer skills to purchase decisions, considering charitable giving, and developing a personal financial plan.

Students will implement a diversified investment strategy that is compatible with personal goals which will include: discussing how saving contributes to financial well-being, explaining how investing builds wealth and helps meet financial goals, evaluating investment alternatives, describing how to buy and sell investments, explaining how taxes affect the rate of return on investments, and investigating how agencies that regulate financial markets protect investors.

Students will also use appropriate and cost-effective risk management strategies which include: identifying common types of risks and basic risk management methods, explain the purpose and importance of property and liability insurance protection, and explain the purpose and importance of health, disability and life insurance protection.

SCIENCE

Physical Science (freshman level course)

This course will promote the student's development of the basic ideas of the physical sciences that include chemistry, physics, weather and climate, and astronomy. In addition to lecture, there is a practical application aspect to the course where the student will be judged upon their ability to follow instructions and complete tasks in an appropriate and safe manner. Resources include the textbook, lab materials, and teacher-generated lessons. Prerequisite: no prior requirements.

Biology (one credit – sophomore level class)

Biology is an overview of the biological sciences and the living world. Topics covered include an introduction to biology, classification of plants and animals, invertebrates, cells, DNA and RNA, genetics, viruses and bacteria, may also include ecology. The course work includes scientific lectures and laboratory exercises. Prerequisite: Passed Physical Science with a D or above.

Botany (½ credit – junior, senior level class)

During this course, students will learn Illinois trees and characteristics of those trees. The second part of the course is a study of the systematic and morphology of the plant kingdom. This course is offered during the fall semester. Prerequisite: Biology with a D or above.

Zoology (1/2 credit – juniors and seniors)

Students will learn about the vertebrate animals. They will become familiar with classification and adaptations of the vertebrate world. An extensive mammal dissection is a requirement of the coursework. This course is offered in the spring semester. Prerequisite: Biology with a D or above. Recommended for **Juniors**.

Anatomy and Physiology (one credit - seniors)

This course provides students with fundamental concepts of the human body's structure and function. This class is designed to help students prepare for further studies in biological or a health related profession. Laboratory exercises may include organ dissections. Prerequisite: Passed Physical Science, Biology and Zoology and **MUST** be a senior.

Environmental Science (1/2 credit-junior, seniors)

Students will be introduced to the concepts of environmental biology. Which include ecosystems, Illinois environment and how people impact the environment. Topics covered will be populations, air, water and land pollution.

Prerequisite: Students must have passed one year of science

Chemistry (one credit, juniors or seniors)

Upon completion of the course, the student should have a clear understanding of the history of chemistry, explored the uses of chemistry in various careers, gained the ability to cope with chemistry questions and problems, and mastered safety in the laboratory. This will include the science of chemistry, matter and energy, atoms and moles, the periodic table, the mole and chemical composition, chemical equations and reactions, stoichiometry, causes of change, states of matter, acid/base interactions and intermolecular forces. This course will concentrate on class work, demonstrations, and projects with some chemistry lab work. In addition, a component of this course will be dedicated to interpreting science questions found on the ACT.

Pre-requisite: Must have passed BIOLOGY with a "C" or better.

Physics (one credit, juniors or seniors)

Upon completion of this one-semester course, the student should have a clear understanding of the history of physics, explored the uses of physics in various careers, gained the ability to cope

with the mathematics of physics questions and problems, and mastered safety in the laboratory. In order to achieve these goals, the majority of the course will be dedicated to laboratory activities. Newtonian mechanics will be demonstrated through the construction and use of a trebuchet. A component of this course will be dedicated to building strong study habits, exploring career paths and colleges online, and constructing scientific research papers.

Pre-requisite: Passing Chemistry I with a "C" or better, enrolled in a senior-level math.

Astronomy (1/2 credit – sophomores – seniors)

Topics will include: Stellar and planetary chemistry, the physics of gravity and Kepler's laws, the significance of asteroids and comets in our solar system, how our understanding of the universe has changed throughout history, and exploring hypotheses of biological activity on distant Earth-like planets. Students will have the opportunity to use software developed to identify near-Earth-objects for the International Asteroid Search Campaign (IASC). Prerequisite: pass biology with a "C" or better.