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ARCOLA HIGH SCHOOL

Course Descriptions

2019-2020

Approved

AGRICULTURE

INTRODUCTION TO AGRICULTURE (No prerequisite)

Agriculture is the industry responsible for food, fuel, and fiber. Understanding agriculture allows us to be informed consumers and opens up a world of career possibilities. In this year-long course, we will explore the history of agriculture, careers in agriculture, agricultural innovation, animal science, plant science, and agricultural mechanics. *Students enrolled in agricultural education have the opportunity to participate in FFA activities and Supervised Agricultural Experiences, which are incorporated into the curriculum to help students develop as leaders, explore careers, and retain academic concepts.*

AGRICULTURAL SHOP SKILLS (Must pass Intro with grade of C or better)

Agricultural mechanics and technology fields require specific skills to ensure safety and efficiency. In this course, we will focus on the knowledge, hands-on skills, and workplace skills applicable to the mechanical and technical areas of the agricultural industry. Instruction will address safety, hand tools, power tools, carpentry, electricity, and metal work to prepare students for future courses in agricultural mechanics and technology. A passing grade in this course is a prerequisite for the Agricultural Engineering and Agricultural Mechanics & Technology courses. *Students enrolled in agricultural education have the opportunity to participate in FFA activities and Supervised Agricultural Experiences, which are incorporated into the curriculum to help students develop as leaders, explore careers, and retain academic concepts.*

AGRICULTURAL ENGINEERING (Must pass Shop Skills with grade of C or better)

The mechanical and technical systems required to power the agriculture industry are deeply rooted in science, technology, engineering, and mathematics. In this year-long course, students will apply STEM principles to many hands-on projects, including designing tools, repairing equipment, and more. This course is offered every other year, alternating with Agricultural Mechanics & Technology. A passing grade in the Agricultural Shop Skills course is a prerequisite for this course. *Students enrolled in agricultural education have the opportunity to participate in FFA activities and Supervised Agricultural Experiences, which are incorporated into the curriculum to help students develop as leaders, explore careers, and retain academic concepts.*

AGRICULTURAL MECHANICS & TECHNOLOGY (Must pass Shop Skills with grade of C or better)

In the Agricultural Mechanics and Technology, students will explore the rapid changes driving the agricultural industry through hands-on projects, including designing, building, and wiring. This course will focus heavily on the data-driven nature of agricultural mechanics, including coding, electricity, programming, and more. This course is offered every other year, alternating with Agricultural Engineering. A passing grade in the Agricultural Shop Skills course is a prerequisite for this course. *Students enrolled in agricultural education have the opportunity to participate in FFA activities and Supervised Agricultural Experiences, which are incorporated into the curriculum to help students develop as leaders, explore careers, and retain academic concepts.*

AGRICULTURAL SCIENCE (Must pass Intro with grade of C or better)

Agricultural Science impacts people in their homes, in their closets, and in their meals. In this course, students will gain a deeper understanding of the impact of agricultural science on their world through hands-on projects and student-driven lessons focused on animal science, plant science, soil science, and food science. A passing grade in this course is a prerequisite for the Biological Science Applications in Agriculture and Agronomy & Horticulture courses. *Students enrolled in agricultural education have the opportunity to participate in FFA activities and Supervised Agricultural Experiences, which are incorporated into the curriculum to help students develop as leaders, explore careers, and retain academic concepts.*

AGRONOMY & HORTICULTURE (Must pass Ag Science with grade of C or better)

In this course, students will build on their understanding of the structure, growth and development of plants from a practical and scientific approach. Students will use the Arcola Greenhouse to explore environmental effects, propagation, plant nutrition, pruning, chemical growth control, pest control and more. This course is offered every other year, alternating with Biological Science Applications in Agriculture. A passing grade in the Agricultural Science course is a prerequisite for this course. *Students enrolled in agricultural education have the opportunity to participate in FFA activities and Supervised Agricultural Experiences, which are incorporated into the curriculum to help students develop as leaders, explore careers, and retain academic concepts.*

BIOLOGICAL SCIENCE APPLICATIONS IN AGRICULTURE (Must pass Ag Science with grade of C or better)

Agricultural Science helps us understand how plants, animals, and natural resources work together to support our world. In BSAA, we will apply scientific inquiry to agricultural science topics, including genetics and heredity and veterinary science. BSAA meets the labs science requirement for admission to Illinois universities and is considered a science credit towards graduation requirements. This course is offered every other year, alternating with Agronomy & Horticulture. A passing grade in the Agricultural Science course is a prerequisite for this course. *Students enrolled in agricultural education have the opportunity to participate in FFA activities and Supervised Agricultural Experiences, which are incorporated into the curriculum to help students develop as leaders, explore careers, and retain academic concepts.*

AGRIBUSINESS MANAGEMENT(Must pass Intro with grade of C or better)

The agriculture industry is the number one employer in the state, providing one of every four Illinois jobs. With focus areas including engineering, economics, biotechnology, marketing, and more, agricultural careers are dynamic and impactful. In this course, students will be equipped with professionalism and skills to help them succeed in any field. This course fulfills the state requirement for consumer education. This is a semester-long course, alternating with Agricultural Economics, and is offered exclusively to juniors and seniors. *Students enrolled in agricultural education have the opportunity to participate in FFA activities and Supervised Agricultural Experiences, which are incorporated into the curriculum to help students develop as leaders, explore careers, and retain academic concepts.*

AGRICULTURAL ECONOMICS (Must pass Intro with grade of C or better)

Agriculture is a global business with far-reaching impacts. In this semester-long course, students will explore the various professions and careers required to trade and market agricultural products. Students will apply economic principles, technical agricultural knowledge, and professionalism in this cross-disciplinary, career-focused course. This is a semester-long course, alternating with Agribusiness Management, and is offered exclusively to juniors and seniors. *Students enrolled in agricultural education have the opportunity to participate in FFA activities and Supervised Agricultural Experiences, which are incorporated into the curriculum to help students develop as leaders, explore careers, and retain academic concepts.*

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 (prerequisite: Art I with C or better 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 (prerequisite: Art I and Art II with a C or better 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 (prerequisite: Art I, I, and III with a C or better and/or approval of instructor - 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.

Graphic Design (prerequisite: Art I)

Graphic Design is a class that teaches art and technology. In this class students will use design as a creative process in communication. Students will also explore various methods used to create and combine words, symbols, and images to create a visual representation of ideas and messages. Students will create logos, album covers, design t-shirts, posters/flyers, school/community advertisements, character design, photography and much more. This class will be working with local businesses/community members to give the "real life" experience of working with clients. Students will use the basic elements and principles of art and also learn how to use various design and painting programs including Affinity Designer and Affinity Photo. This class teaches the basics of Graphic Design through an illustrative and corporate view. This class is open to sophomores, juniors, and seniors. Limit 20 students.

Music

Band (no prerequisite)

Band provides an opportunity for students to perform on wind and percussion instruments in an ensemble setting. No prior musical experience is required to participate in band. Students will develop instrumental technique and the ability to interpret musical notation through study and performance of classic and contemporary wind band literature. The band performs throughout the year at several community and school sponsored events. All students enrolled in band are required to attend these performances. During the fall semester, the band prepares music for a halftime show that is performed at all home football games and at several marching band competitions. In the spring, the band prepares pieces for organizational and solo contests.

Chorus (no prerequisite)

Chorus is an elective class open to all high school students. Students will sing and perform a varied repertoire of music at public events and school concerts. Instruction includes reading and interpreting musical notation, developing proper vocal technique and maintaining vocal health. This course places emphasis on the importance of vocal music throughout human history and on the study of classic and contemporary styles. In the spring semester, students have the opportunity to perform a solo or small group performance for contest.

Advanced Choir (Audition required) Junior/ Senior level

This performance-oriented choir studies and performs choral literature selected from a variety of periods in music history. This course is designed for advanced singers to develop vocal techniques and sight-reading skills. The study of music theory and history are emphasized for the interpretation of the literature. This group performs in concert six times per year and also performs with the high school chorus. Attendance required at all performances.

Music Theory (1/2 Credit – Semester class)

A foundation course for students considering the study of music, or for a student who may just have an interest in learning to write or listen to music better. Students in this course will develop mastery in the elements of music construction and ear training. Students will demonstrate the ability to analyze written

music in terms of key, chords, non-harmonic tones and basic forms. Students will compose their own original music using concepts learned in class.

Music Appreciation (1/2 Credit – Semester class)

Introduces students to the history, genres of music, and various aspects of world music. Historically, music will be examined from the surviving examples of ancient and early musical forms through to contemporary pieces from around the world. Various styles will be listened to and studied from Baroque, to Bee-Bop, and Renaissance to Avant Gard. A better respect and appreciation for all forms of music will be the final result.

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. This class meets the consumer education requirements for graduation as outlined by the state.

Accounting I: (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: (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, Computer Concepts I)

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

Introductory Business (1/2 Credit – Semester class)

Introductory Business courses survey an array of topics and concepts related to the field of business. These courses introduce business concepts such as banking and finance, the role of government in business, consumerism, credit, investment, and management. They usually provide a brief overview of the American economic system and corporate organization. Introductory Business courses may also expose students to the varied opportunities in secretarial, accounting, management, and related fields.

LANGUAGE ARTS

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

Writing Intensive (ISCC code 01001A000 - English/Language Arts I (9th grade))

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 SAT Prep (2nd semester sophomores, 1st semester juniors; no prerequisite)

(ISCC code - 01203A000 - English-Test Preparation)

English and Reading test preparation courses provide students with activities in analytical thinking and with the skills and strategies associated with standardized test taking. Topics covered include vocabulary, reading comprehension, and writing strategies. Time management, scoring procedures and strategies to help with test anxiety will also be covered. Course materials may include ACT, SAT and PSAT review materials, College Board and Khan academy online learning tools, and previous standardized examinations.

Speech 1 (AHS): 1 semester, sophomores/juniors/seniors

(ISCC code 01151A000 - Public Speaking)

Recommended for all students as a key component of college and career readiness.

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 (MLA sources), compose, and deliver various types of speeches, including: impromptu, informative, persuasive, and demonstrative. A debate component may also be included, when time allows. Delivering speeches is required to pass, as written-work is a small portion of students' grades. Participation in school assemblies may be required. Speech is highly recommended for college-bound students, as many colleges require at least one speech class.

Advanced Speech / Debate & Argumentation: 1 semester, juniors and seniors

Writing Intensive (ISCC code 01153A000 - Forensic Speech-Debate)

(prerequisite: passing Speech 1 with a C or higher and instructor approval; or, passing Dual Credit Speech)

College Preparatory

Advanced Speech builds on the core speaking principles established in Speech 1 and Dual Credit Speech, with a focus on argumentation and debate. Students can expect to participate in both team and individual debates of various styles: Lincoln-Douglas, Cross-Examination, Public Forum, etc.. Persuasion and argumentation will also be a focus, with emphasis on recognizing logical fallacies, rebuttals and cross-examinations.

Dual Credit Speech (EIU CMN 1310): 1 semester, juniors with permission/seniors

Writing Intensive (ISCC code 01151A000 - Public Speaking)

Curriculum and admission determined by Eastern Illinois University; students receive credit for CMN 1310 Introduction to Speech Communication. From EIU's course catalog: *Fundamental principles of selecting, analyzing, evaluating, organizing, developing, and communicating information, evidence, and points of view orally. The course includes instruction in techniques of listening and informative, persuasive, and reactive speaking. (Graded A, B, C, N/C)*

Journalism 1: 1 semester, sophomores, juniors, seniors; no prerequisite

(ISCC code 11101A000 - Journalism)

This is a writing course concerned with the principles of journalistic writing, legal and ethical issues, social media interviewing skills, inverted pyramid format, leads, and various writing styles, and how those principles can be applied to the creation and theme of the school yearbook. Students will be required to write short articles, some of which may be used in the yearbook. Students will also engage in copy editing, headline writing, caption writing and thematic development. Basic photojournalism and desktop publishing will also be addressed. Enrollment in the course requires that students join the AHS Torch (yearbook) staff. Students may be allowed 2 semesters of credit of Journalism if they pass the first semester with a 70% or higher and have the instructor's/administrator's permission. The second semester of Journalism will further develop writing and editing skills, and prepare students for leadership roles within the yearbook as editorial staff.

Journalism 2 (1 semester; juniors, seniors; prerequisite: passing Journalism 1 with a C or higher and instructor approval)

Writing Intensive (ISCC code 11101A000 - Journalism)

A second-level journalism class focused on reviewing basic journalistic principles, and introducing new organizational patterns and leads. The course will also dive deeper into legal and ethical issues in Journalism, Freedom of Speech, Freedom of the Press, writing for social media, documentaries and broadcast journalism.

Composition (sophomores, juniors, seniors; no prerequisite)

Writing Intensive (ISCC code 01103A000 - Composition)

This course is designed for the student who may struggle with the language arts. This course presents strategies for comprehending, evaluating and applying information from real-world sources, including, but not limited to newspaper and magazine articles, websites, printed reference materials, reports and short fiction. Writing instruction focuses on the clear, purposeful communication and the use of standard spelling, grammar, punctuation, and capitalization. Students will use various media to learn how to gather, to understand, and to evaluate information for research-based writing. In this course students will utilize and refine their reading, writing, listening, and speaking skills. Students will learn how to communicate effectively in different settings through problem solving, technological application, and interactions with authentic audience, all to help them become successful communicators in the world beyond high school.

Creative Writing 1 (sophomores, juniors, seniors; no prerequisite)

Writing Intensive (ISCC code 01104A000 - Creative Writing)

Creative writing is designed for students to produce their own original pieces of writing, including poetry, short stories, and longer works of fiction. Students will study the craft and structure of writing while developing their own skills, techniques, and individual styles. Students may examine exemplary pieces of written work from other authors to develop appreciation for high quality writing. Student work can be shared in both oral and written forms, and students may be encouraged to submit their work for publication in print and online media.

Creative Writing 2 (juniors, seniors; prerequisite: passing Creative Writing 1 with a C or higher and instructor approval)

Writing Intensive (ISCC code 01104A000 - Creative Writing)

This is a second-level creative writing class in which students will review skills and techniques. Students will continue to create new pieces of writing (including poetry, short stories, and longer

fiction) while also working to revise and expand previously-written pieces. At the end of the semester, students will have produced a portfolio of their own creative work. Student work can be shared in both oral and written forms, and students may be encouraged to submit their work for publication in print and online media.

Business and Technical English Communications (BTEC) 1 (sophomores, juniors, seniors; no prerequisite)

Writing Intensive (ISCC code 01156A000 - Applied English and Communications)

This course will focus on the writing skills necessary for success in the workplace and technical schools. Assignments may include: short arguments and persuasion, business letters, professional emails, resumes, business proposals, applications, presentations, instructional writing and speech, advertisements, social media, writing for technical manuals and blogs. Readings will focus on key ideas and details from technical manuals and informational texts.

Business and Technical English Communications (BTEC) 2 (juniors, seniors; prerequisite: passing BTEC 1 with a C or higher and instructor approval)

Writing Intensive (ISCC code 01156A000 - Applied English and Communications)

BTEC2 will build upon the basic skills introduced in BTEC1, with an emphasis on authentic tasks (project-based) utilizing those skills.

American Literary Studies 1 (juniors, seniors; no prerequisite)

College Preparatory (ISCC code 01054A000 - American Literature)

Writing Intensive

American literature courses focus upon commonly known American authors and their work. Selections chosen from a variety of genres and time periods in American history. Students improve their critical thinking skills as they determine the underlying assumptions and values within the selected works and as they understand how the literature reflects the society of the time. Oral discussion is an integral part of literature courses, and written compositions are often required.

American Literary Studies 2 (juniors, seniors; prerequisite: passing American Literature 1 with a C or higher and instructor approval)

College Preparatory

Writing Intensive (ISCC code 01054A000 - American Literature)

This course will build off the principles of American Literary Studies 1 diving further into more complex texts (classic novels), themes and discussions of the works from a variety of time periods and regions. Potential conclusion with a project based learning activity in which students apply their understanding from the semester.

Modern Literature (sophomores, juniors, seniors; no prerequisite)

(ISCC code 01062A000 - Literature of a period)

This course is for students who particularly like to read and analyze literature. Students will examine the problems and challenges of various cultures through their study of recent novels, poems, biographies, short stories, analytical essays, film and book reviews, even films. Students determine the underlying assumptions and values within the selected works, reflect upon the influence of societal events and social attitudes of the time, reflect upon the influence of the literature on others, and explore a particular theme as expressed from several points of view. Oral discussion is an integral part of literature courses, and written compositions are often required.

Modern Literature 2 (juniors, seniors; prerequisite: passing Modern Literature 1 with a C or higher and instructor approval) (ISCC code 01062A000 - Literature of a period)

This course is a continuation of Modern Literature 1 diving further into the complexity of texts and applying advanced critical thinking to discussions, writings, and semester projects.

Film Studies 1 (sophomores, juniors, seniors; no prerequisite)

Writing Intensive (ISCC code 01099A000 - Literature-Other)

The study and analysis of films as a literary art form. Students will be introduced to elements of cinematography and their equivalent literary purpose, as well as a history of filmmaking, and an introduction to several great filmmakers. Assessments will include comparison essays, analytical essays and presentations, quizzes, and presentations. Students who enjoy films as visual storytelling should consider this course.

Film Studies 2 (juniors, seniors; prerequisite: passing Film Studies 1 with a C or higher and instructor approval)

Writing Intensive (ISCC code 01099A000 - Literature-Other)

FS2 will build on the principles introduced in FS1, and dive deeper into cinematography and film-making skills. Students will collaborate to write a script and produce a short film as a semester project.

Dual Credit College Prep English IV (Senior only, Prerequisite: English III, 80% or higher in English II, GPA 3.0/4.0) (ISCC code 01004A000)

EIU Course offerings:

Semester 1- Composition 101

Writing Intensive

College Composition I focuses on informative, analytical, evaluative, and persuasive writing and introduces students to college-level research. Students will develop sound writing processes, produce cogent writing, strengthen analytical reading skills, and work with sources.

Semester 2- English 2009G- Literature and Human Values

An introduction to human health through literature, narrative, and the visual arts. Students will investigate the the fundamental and vibrant ways that the humanities and medical/health studies complement each other's focus on the well-being and complexity of the human. Through readings (fiction, non-fiction, and film), students will develop strong critical skills of analysis through topics including representations of health, illness narratives, death and dying, patient-professional relationships, medical technologies, and the human body. Students will be asked to complete several written projects (individual and collaborative), varying in complexity and length.

**This course counts as AHS English credit only; however, it will count as a collegiate Humanities elective.

World Literature 1 (sophomores, juniors, seniors; no prerequisite)

College Preparatory (ISCC code 01058A000 - World Literature)

British and World Literature is designed for the student who is competent or gifted in language arts. This course is a college preparatory course stressing the involvement of reading, interpreting and analyzing classical works from the British Isles and around the globe. This course will help to strengthen and challenge students' critical thinking, language and writing skills.

World Literature 2 (juniors, seniors; prerequisite: passing World Lit. 1 with a C or higher and instructor approval)

College Preparatory (ISCC code 01058A000 - World Literature)

This course is designed as a continuation of World Literature 1 and will build on the principles discussed in WL1 working with more complex, longer texts to challenge student's critical thinking, language and writing skills.

Novels (juniors, seniors; no prerequisite)

(ISCC code 01061A000 - Literature of a Genre)

This course is designed for students who want to study the novel as a literary form. Through readings and discussions of several novels from a wide variety of genres and time periods, students will analyze literary elements of these texts as well as the novels' connection to larger historical or modern real-world issues.

Freshman/Sophomore Instructional English

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)

This course is designated to be taught at a less rigorous pace allowing for more individualized interventions for student with diverse learning needs

Junior/Senior Instructional English (prerequisite: Fr/So Instructional English)

This class is a writing intensive, junior level course focusing on grammar, punctuation, and functional writing skills. Students will be introduced to and explore: film studies, mass media, advertising and business communication. This course includes an AR and vocabulary component. This course is designed to be taught at a less rigorous pace, allowing for more individualized interventions for students with diverse needs.

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.

FAMILY AND CONSUMER SCIENCES/HOME ECONOMICS

Orientation to Family and Consumer Science:

This course introduces students to the field of family and consumer science. It is designed to develop the total well-being of the student in order to help them become a healthy, well-adjusted, self-confident individual, family member and worker. Basic subject matter will be presented in the following areas: foods and nutrition; clothing; child development and care; housing design, decoration and maintenance; consumer decisions and personal financial management; and interpersonal relationships. The students will construct pajama pants or another simple sewing project and will need to purchase the material and other supplies needed to complete the project.

Food and Nutrition I: 1 semester

This course will provide students with classroom and laboratory experiences needed to develop a knowledge and understanding of basic food principles and nutrition concepts for people of all ages. This course provides students with an understanding of food's role in society, instruction in how to plan and prepare meals, experience in the proper use of equipment and utensils, and background on the nutritional needs and requirements for healthy living. Some classes place a heavier emphasis on the nutritional components of a balanced diet, while others concentrate on specific types of food preparation. Although these courses may present career opportunities in the foodservice industry, their emphasis is not career-related. Units of study will include: 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; applying hospitality skills; maximizing resources when planning/preparing/serving food; 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 - prerequisite: Foods and Nutrition I

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 characteristics. Course content should include the following broad areas of 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-borne illnesses; and 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 – junior and seniors; Prerequisite: Orientation to FCS, Foods I & II

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 will receive laboratory experiences. Additional units of study will include, but not limited to: understanding of commercial food service equipment; preparing food in quantity and serving food; safety and sanitation; cost control; training experiences will simulate those found in business and industry. The course provides students with the information of professional careers in the food industry.

Commercial Foods II: - 1 semester, juniors and seniors; prerequisite: Orientation to FCS, Foods I & II and Commercial Foods I

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.

Adult Living: -1 semester - juniors and seniors

This course is designed to assist individuals and families in building and maintaining healthy interpersonal relationships among family members and other members of society. These courses often emphasize (but are not limited to) topics such as social/dating practices, human sexuality and reproduction, marriage preparation, parenthood and the function of the family unit, and the various stages of life. They may also cover topics related to individual self-development, career development, personal awareness, and preparation for the responsibilities of a family member and wage earner.

Child Development: (1 semester, sophomores, juniors and seniors)

This course provides learning experiences, which help students gain knowledge and understanding about the physical, mental, emotional and social growth and development of children from conception to pre-school age. In addition, these courses help students discover how parents should respond to the various stages of childhood. Course content typically includes topics such as pregnancy and the complications involved, prenatal care and characteristics and care of the newborn prenatal and birth processes; responsibilities and difficulties of parenthood; fundamentals of children's emotional and physical development; and the appropriate care of infants, toddlers, and young children. Other areas will include practicing good health and safety standards for children, encouraging children to utilize their resources, discipline, family values and attitudes. Students will also study discipline versus punishment, aggressive behavior, handling special problems, cultural differences and day care services. Information on careers related to childcare will be utilized throughout this course.

Human Development: (1 semester, juniors and seniors)

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. This course content includes the following areas: developing short and long term 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 communication with others; and evaluating family and career changes as to the impact on individuals. This course will be offered alternate years.

Living Environment: 1 semester - juniors and seniors

This course provides basic knowledge and skills needed to select, acquire, furnish, maintain, and manage residential and commercial environments to meet the needs of the users/occupants. The course includes the application of the interior design elements and principles; selection and care of furnishings, equipment and accessories in relation to socio-economic factors, trends, personal tastes and characteristics, as well as physical and psychological needs; safety, sanitation, and efficiency factors in interior design; and evaluating use and care of textiles. This project based course investigates a variety of related career opportunities, including entrepreneurship. Emphasis is placed on the application of project management skills. Other topics may include 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.

Parenting: 1 semester – sophomores, juniors and seniors

This course helps students understand the responsibilities, satisfactions and stresses of parenthood. Course content includes the following: managing and organizing 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 relations skills in children/adolescents; community resource agencies and services; and evaluating impact on parenting of family and career changes

Interrelated Co-Op – 1 year - seniors

Workplace Experience courses provide students with the possibility of leaving school at the beginning of 9th hour to have a work experience in a field related to their interests. Students may be released from school for work; however, the work experience is not school related and no lab grade will be given. If the student chooses to work, he/she will be responsible for securing their job and working with the employer through any issues which may arise. The student 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, interviewing and job termination.

Family Resource Management and Planning 1 semester - juniors and seniors

This course focuses on the identification and management of personal and family resources to meet the needs, values and wants of individuals and families throughout the life cycle. The course utilizes a variety of project-based experiences and service learning opportunities to gain knowledge and expertise in understanding and applying management skills, with consideration to diverse social, economic, technological, environmental, and cultural characteristics of individuals and families. Topics include: consumer rights and responsibilities in the marketplace; financial responsibility and decision making (savings, investing, spending patterns, budget planning and money management); credit and debt; risk management and insurance; saving and investment; homeownership; state and federal taxes; electronic banking; contracts, consumer protection and current issues in the economy. This class meets the consumer education requirements for graduation as outlined by the state.

Clothing/Sewing: 2 semesters - sophomores, juniors and seniors

Clothing/Sewing courses introduce students to and expand their knowledge of various aspects of wearing apparel, sewing, and fashion. These courses typically include wardrobe planning; selection, care, and repair of various materials; and construction of one or more garments. They may also include related topics, such as fashion design, fashion history, the social and psychological aspects of clothing, careers in the clothing industry, and craft sewing. The students will be constructing sewing projects throughout the school year and will be required to purchase material and other supplies to complete them.

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

Algebra A

This is the first year of a two-year Algebra program designed for students who are challenged by high school mathematics. Topics covered in this course include: preparing for Algebra, expressions, equations, and functions, linear equations, linear functions, equations of linear functions and linear inequalities.

Algebra B (prerequisite: Algebra A)

This is the second year of a two-year Algebra program designed for students who are challenged by high school mathematics. Topics covered in this course include: systems of linear equations and inequalities, exponents and exponential functions, and quadratic expressions and equations, quadratic functions and equations, and radical functions and Geometry.

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: Algebra A and Algebra B 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

Transitional Algebra/Geometry(pre-requisite: Algebra B and Geometry Concepts, Teacher recommendation based on standardized test scores and classroom performance) Math III is a course designed for students who need a review of the basic algebra and geometry concepts learned during the first two years in high school. Topics covered include linear equations and inequalities, systems of equations, exponents, quadratic equations, polynomials, factoring, rational expressions and equations, irrational numbers, triangles, congruent figures, similar figures, parallels, polygons, circles, area, volume, trigonometric functions, and coordinate geometry. An emphasis will be placed on learning the basic skills needed to be successful on standardized test, especially with the use of the scientific calculator. This course is intended for those students who have been enrolled in basic algebra and geometry concepts and whose test scores indicate a below-grade level aptitude and achievement.

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

This Pre-Calculus course combines the study of Trigonometry, Elementary Functions, and Math Analysis topics as preparation for Calculus. Topics typically include the study of complex numbers; polynomials; logarithmic, exponential, rational, right trigonometry, and circular functions, and their relations, inverses and graphs; trigonometric identities and equations; solutions of right and oblique triangles; the polar coordinate system; matrix algebra; mathematical induction; and limits and continuity.

Calculus(prerequisite- Math IV with C or better)

This course is designed for students to explore the fundamentals of calculus and to challenge students to meet the rigor required in higher-order mathematics courses. This calculus course includes the study of limits, explicit and implicit differentiation, integration, the definite and indefinite integral, and the application of calculus.

OTHER**Living Skills - 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.

Careers

Careers is a full year class that addresses the skills that students need after graduating high school. First semester, students have the opportunity to explore the 16 career clusters, take personality quizzes, and ultimately come up with a tentative plan for what they may like to do after high school. Second semester provides a more practical approach to finding and keeping a job, as well as survival skills needed for post-secondary success. Students learn the basics of finding a job, interviewing, job applications, and resumes. Students also have the opportunity to learn necessary life skills including budgeting, banking, and conflict resolution. This class meets the consumer education requirements for graduation as outlined by the state.

Driver Education

Freshman reaching the age of 15 are admitted to driver education. There are usually three sections per year and students, on the basis of age and availability, are assigned behind-the-wheel driving instruction. Although an attempt is made to get most students finished before their sixteenth birthday, the school or state makes no guarantee of such completion. This is a \$20.00 state fee per student. There is a \$50.00 school fee that needs to be paid before the instruction permit is issued.

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.

Creating Entrepreneurial Opportunities (CEO Program) Junior or senior level

Creating Entrepreneurial Opportunities is a year-long course designed to utilize partnerships that provide an overview of business development and processes. Our local business community partners with area schools to create project-based experiences for students by providing funding, expertise, meeting space, business tours, and one-on-one mentoring. Students visit area businesses, learn from guest speakers, participate in a class business, write business plans, and start and operate their own businesses. Business concepts learned through the experiential CEO class are critical; the 21st century skills of problem-solving, teamwork, self-motivation, responsibility, higher-order thinking, communication, and inquiry are at the heart of a student's development throughout the course.

PHYSICAL EDUCATION (P.E.)

Physical Education

Physical Education is a course required for students in grades 9 – 12. Advanced 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 Advanced P.E. in order to meet graduation requirements.

Advanced Physical Education

Advanced PE is designed to enhance athletic performance and overall wellness through weight training, conditioning, study of nutrition and the study of physiology of the body. The main focus of this class will be to prepare the individual for top physical performance. All students may participate in Advanced P.E. This class may involve games to increase physical conditioning, however, it will not involve instruction in skill practice for unit games. In order to participate in Advanced P.E. students must complete an Advanced Physical Education Request form which will require specific standards to be met in order to be enrolled in the class. Students who may not be able to meet some of the standards will still be allowed to enroll in the class given they write an improvement plan which outlines what they will do during and outside of class to achieve the standards. (Request forms may be picked up in the Guidance Office)

SOCIAL STUDIES

Regional Geography (½ credit semester, no prerequisite)

In this course, students will study an overview of world geography by analyzing the relationships between people, places, and environments. 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.

Current Events (no prerequisite, ½ credit)

Current Events is a course designed for the student to become aware of the major issues of the modern world. This course will help students make connections between current events and history, enhance the student's understanding of world events, and encourage students to be informed citizens. Students will participate in class discussions, conduct research, and create presentations on selected current topics. The focus of the class will be issues that affect the student as a resident of the World, the U.S., Illinois, and Arcola. The class will follow daily news events and will be study the social, political and economic issues on a daily basis.

Civics - Sophomores - Requirement for graduation (½ credit semester)

U.S. Government is a comprehensive course to provide an overview of the structure and functions of the U.S. government and political institutions and examine constitutional principles, the concepts of rights and responsibilities, the role of political parties and interest groups, and the importance of civic participation in the democratic process. This course will examine the structure and function of state and local governments. Students will analyze and study the US Constitution and the Illinois Constitution and must successfully pass both exams.

World History I (½ credit semester)

The focus of this course is the study of the historical development of people, places, and patterns of life from ancient times until the Renaissance. Students will use skills of historical and geographical analysis to explore the early history of the world. 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.

World History II (½ credit semester)

The focus of this course is the study of the historical development of people, places, and patterns of life from the Renaissance until the present. Students will use skills of historical and geographical analysis to explore the early history of the world. 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.

American History I - Colonization to Reconstruction (1607 – 1877)

Full year, 11-12, Prerequisite – U.S Government/Civics

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 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.

Dual Credit American History I – Colonization to Reconstruction (1607 – 1877)

Dual Credit - writing requirement

Full year, 11-12 Prerequisite – U.S. Government/Civics, 3.0/4.0 GPA

This course is designed and coordination with the EIU History department and meets the academic standards of higher education. Upon completion of the course students will receive college credit. The goal of this course is to introduce students to the major themes in United States history to 1877 through the use of primary resources. Students will learn about the founding principles and events that shaped America's development through this time period. The course, will center on the historical thinking skills that a historian uses to analyze and interpret the past. Students will look at historical evidence first-hand, reading primary

sources (contemporary, often firsthand, evidence from the past) to form interpretations of the past. Critical reading, analysis of conflicting evidence, and building arguments from primary sources are not just skills of use to future historians.

American History II - Reconstruction to present (1877 – Present)

1 semester, 11-12 Prerequisite – American History I

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.

Dual Credit American History II Reconstruction to present (1877 – Present)

Dual Credit, writing requirement

1 semester, 11-12 Prerequisite – American History I, 3.0/4.0 GPA

This course is designed in coordination with the EIU History department and meets the academic standards of higher education. Upon completion of the course student will receive college credit. Though the use of Primary resource materials this three-credit course emphasizes the benefits and costs of the great growth experienced by the United States during the late nineteenth and twentieth centuries (including discussion of industrial society, the agrarian movement, America as a world power, the Great Depression, and after). Throughout this entire period, America increasingly looked to the state to address the problems associated with its massive expansion. Thus government grew more activist and influential. Yet at the same time Americans continued to look with suspicion on concentrated power—whether government, business, or other. Efforts to limit and channel growth also shaped American development.

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.

SCIENCE

Earth Science(1 Semester, 10-12, Prerequisite - Pass one year of science)

Course Description:

The course will offer insight into the environment on earth and the earth's systems. While presenting the concepts and principles essential to students' understanding of the dynamics and history of the earth, these courses usually explore oceanography geology, meteorology, and geography. Resources include the textbook, lab materials, and teacher-generated lessons.

Biology (Full Year, prerequisite: recommendation from Junior High Science teacher, Freshman or Sophomore level class)

Biology is an overview of the biological sciences and the living world. Topics covered include but not limited to: an introduction to Biology, Ecology, viruses and bacteria, cells, DNA and RNA, genetics. The coursework includes scientific lectures and laboratory exercises. Resources include the textbook, lab materials, and teacher-generated lessons.

Physical Science (Full Year, Freshman year only, No Prerequisite)

Topics covered in this class include but are not limited to: laboratory safety, proper use of basic laboratory equipment, scientific method and experimental design, measurement, presentation of data through graphs and tables, basic structure of matter, waves (with a focus on light and sound), and lenses and mirrors. In addition, the course will include a Project Lead the Way unit, Science of Technology. In this unit, students will explore scientific principles of chemistry, physics, and nanotechnology and apply them to technology that is found in products that we use today. Resources include textbook, lab materials, and teacher-generated lessons, labs, and assignments.

Astronomy (1 Semester, 10-12, Prerequisite – Pass one year of science)

Course Description: 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, current events in space exploration, and exploring hypotheses of biological activity on distant Earth-like planets.

Environmental Science (1 semester , prerequisite: pass one year of science)

Students will be introduced to the concepts of Environmental Biology . which will include how people impact the environment, sustainability, and environmental awareness. Topics will include populations, pollution, climate change, and natural resources. Resources include the textbook, lab materials, and teacher-generated lessons.

Dual Credit Environmental Science (1 semester, junior, senior level, GPA 3.0/4.0)

A study of the interrelationships of the living and non living components of the environment, the ecology of humankind, and the interaction of humans with the environment. The course emphasizes current environmental issues and possible solutions and courses of action. Curriculum will be driven by Eastern Illinois Professor.

Botany (1 semester, prerequisite: Biology, Sophomore, 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. Resources include the textbook, lab materials, and teacher-generated lessons.

Zoology (Full Year, prerequisite: pass Biology with a C or better, Sophomore, Junior, Senior level class)

Content will include but not limited to: Evolution, Age of the Earth, classification, invertebrates and vertebrates. They will become familiar with classification and adaptations of the animal world. An extensive mammal dissection is a requirement of the coursework. This course will also involve other dissections and labs. Resources include the textbook, lab materials, and teacher-generated lessons.

Human Anatomy and Physiology (Full Year, prerequisite: Biology and Zoology with a C or better, Senior Level Class)

This course provides students with fundamental concepts of the human body. Each human system will be introduced with general Anatomy (structure) and Physiology (function). This class is designed for students that are planning on continuing their studies in Biological Sciences or in a health related profession. Laboratory exercises may include organ dissections and a trip to a local cadaver lab. Resources include the textbook, lab materials, and teacher-generated lessons.

Chemistry (prerequisite:-credit in Algebra with a C or better (Algebra I or Algebra A/B), Sophomores, 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.

Chemistry II (Prerequisite: Pass Chemistry with a C or better) Junior or Senior Level class

This course will provide an overview of Electrochemistry, Nuclear Chemistry, Thermodynamics, Organic Chemistry, and Biological Chemistry. This class is designed to prepare students for further studies in health or research professions. This course will focus on class work, demonstrations, and projects with some chemistry lab work.

Physics (prerequisite: chemistry with a C or better, enrolled in senior level math, juniors or seniors)

Upon completion of this 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.

Human Biology Dual Credit Class 1 AHS credit – junior, senior level class

Parkland College 4 Credits (offered as Dual credit only if master level qualified teacher)

During this course, students will be provided the fundamental principles of human biology in the context of current social issues. The course emphasis is on the human body and its interconnectedness to health, disease, growth, development, genetics, and evolution, as they relate to individuals and society. Students will use the scientific method in a laboratory setting. The course will provide a framework for students to make educated decisions about the use of technology in biology and medicine. Cancer, HIV and AIDS, organ donation, vaccines, and gene therapy will be discussed in the study of immune function. Concepts will be covered relating to sexually transmitted diseases, prevention, prenatal testing, genetic counseling, and the ethical issues involved. A major focus will be cell reproduction, genetics, biotechnology, and evolution. Students will be required to demonstrate their abilities to collect, analyze, and evaluate information. Mastery of material will be demonstrated through both written and oral communication.

Prerequisite: A or B in Biology and successful completion of Parkland assessment test. Must have a GPA of 3.0.

Introduction to Engineering Design (IED) -(Prerequisite: Algebra I)

Students are introduced to the engineering profession and a common approach to the solution of engineering problems, an engineering design process. Utilizing the activity-project-problem-based (APB) teaching and learning pedagogy, students will progress from completing structured activities to solving open ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Through both individual and collaborative team activities, projects, and problems, students will solve problems as they practice common engineering design and development protocols such as project management and peer review. Students will develop skill in technical representation and documentation of design solutions according to accepted technical standards, and they will use current 3D design and modeling software to represent and communicate solutions. In addition, the development of computational methods that are commonly used in engineering problem solving, including statistical analysis and mathematical modeling, are emphasized. Ethical issues related to professional practice and product development are also presented. Units of study include Design Process, Technical Sketching and Drawing, Measurement and Statistics, Modeling Skills, Geometry of Design, Reverse Engineering, Documentation, Advanced Computer Modeling, Design Team and Design Challenges.

Principles of Engineering (POE) - (Prerequisite IED with grade of C or better)

This course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology. Students have the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APB) learning. By solving rigorous and relevant design problems using engineering and science concepts within a collaborative learning environment, APB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education. Units of study will include Energy and Power, Materials and Structures, Cost Control Systems, and Statistics and Kinematics.

