

Illini West High School

Course Catalog 2024-2025

Illini West High School Graduation Requirements

<i>Course</i>	<i>Credits</i>
English	4 credits
Math	3 credits
Social Studies	2 credits
Science	3 credits
Foreign Lang, Art, Music, or Vocational	1 credit
Health	½ credit
Consumer Economics	½ credit
Drivers Education	½ credit
Computer Concepts	½ credit
Physical Education	3 ½ credits
Electives	5 ½
Total Credits	24

English I & II are designated as Illini West High School writing intensive courses.

Of the three required math credits, all students will be required to pass Basic Algebra or Algebra I as well as Geometry OR Basic Geometry.

U.S. History and Government/Civics is required of all students. All students must pass the U.S. Constitution and the Illinois Constitution in the Government class in order to graduate.

The completion of General Science or Biology I is required of all students.

To be eligible for Drivers Education, students must successfully complete 8 classes in the two preceding semesters (including 8th and 9th grade).

AGRICULTURE

AG 101 INTRO. TO AGRICULTURE (2 semesters – ½ credit per sem. – grades 9-12) This course provides an opportunity for students to learn how the agricultural industry is organized with 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, natural resources, agribusiness management, and agricultural mechanics will be presented. Students will learn about FFA history, structure, parliamentary procedure, leadership skills, and public speaking. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and supervised agricultural experience (SAE) projects is an integral course component of leadership development, career exploration and reinforcement of academic concepts.

AG 201 AGRICULTURAL OCCUPATIONS (2 semesters – ½ credit per sem. – grades 10-12) **Prerequisite: Intro. To Agriculture.** Career Exploration courses help students identify and evaluate personal goals, priorities, aptitudes, and interests with the goal of helping them make informed decisions about their careers. These courses expose students to various sources of information on career and training options and may also assist them in developing job search and employability skills. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AG 401 HORTICULTURE (1 semester – ½ credit – grades 10-12) This course is designed to introduce students to the horticulture industry and provide them with basic plant science knowledge that can be further developed in advanced horticulture courses. Major units of instruction include horticulture research, horticultural careers, plant anatomy, seed germination, plant propagation, growing media, pest management, hydroponics, identifying horticultural plants, growing greenhouse crops, and floral design. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration, and reinforcement of academic concepts.

AG 402 GREENHOUSE MANAGEMENT (1 semester – ½ credit – grades 10-12) This course provides advanced agriculture students with a technical understanding and working knowledge of the greenhouse industry. Topics include safety, plant physiology, plant identification, growing media, plant nutrition, integrated pest management, propagation, growing greenhouse crops, and greenhouse business concepts. Students will gain knowledge and skills related to the care and management of gardens and greenhouses. Agribusiness units will be introduced in merchandising, advertising, sales, and operating a greenhouse business. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration, and reinforcement of academic concepts.

AG 301 AG. BUSINESS- (2 semesters – ½ credit per sem. – grades 10-12) Consumer Economics Credit
Prerequisite: Completion of Agricultural Occupations is strongly recommended. This course on topics and concepts related to the field of agricultural business. The course introduces business concepts such as record keeping, banking and finance, the role of government/ the USDA in agricultural business, consumerism trends, basics of credit, investment, and management. They usually provide a brief overview of the American Agricultural economic system, cooperatives and corporate organizations. This course may also expose students to a wide variety of agricultural business fields such as sales, marketing, accounting, loan officer and other related careers. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AG 302 AG. MACHINERY & ELECTRICITY (2 semesters – ½ credit per sem. – grades 10-12) **Prerequisite: Completion of Agricultural Occupations is strongly recommended.** This course is organized for 10th, 11th, & 12th graders who have a basic understanding of agriculture and desire to learn about farm & machinery management. Students will become familiar with various areas of livestock and crop productions, performance records, genetics, animal health and diseases, AG chemicals, safety oxyacetylene welding, basic electric wiring and engine operation, and machinery maintenance and repair. AG projects will also be constructed in the shop. **Offered even years.**

AG305 BIOLOGICAL SCIENCE APPLICATIONS IN AGRICULTURE – ANIMAL SCIENCE (2 semesters – ½ credit per semester – grades 10-12) This course will develop students' understanding of the livestock (beef, dairy, sheep, goats, and swine), poultry, and large (equine) animal industry. Topics of instruction include scientific investigations, genetics, animal anatomy and physiology, animal nutrition, animal reproduction, animal health, and meat science. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AG 304 NATURAL RESOURCES, CONSERVATION & MANAGEMENT (1 semester – ½ credit – grades 10-12) This course is designed to introduce students to management and conservation skills and provide them with basic natural resource management knowledge that can be further developed in more advanced courses. Units include an introduction to understanding natural resources science and management, understanding of conservation and different practices, ecological concepts and scientific principles, impacts of pollution, fish and wild ecology, fire ecology, renewable and nonrenewable resources, and human impacts on wildlife. Career exploration will be discussed including park ranger, game warden, campground manager, forester, conservation officer, wildlife manager, and related occupations. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration, and reinforcement of academic concepts.

AG 306 AGRICULTURE BIOTECHNOLOGY (1 semester – ½ credit – grades 11-12) This course examines the agricultural applications of biotechnology, the use of living organisms to solve problems or make useful products. Applications include technologies used in bio-processing, cell/tissue culture, genetic and protein engineering. Specific units of instruction include: impacts of biotechnology, genetics, and biotechnology in plant, animal, and microbial science. Students are provided with information needed for considering a career in the emerging occupation of agricultural biotechnology technician. Additional opportunities include employment in the laboratory performing tissue culture or DNA synthesis, caring for animals in research settings, performing plant field trials, or growing plants in research greenhouses and growth chambers. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts. **Offered even years.**

AG 307 AG COMMUNICATIONS AND LEADERSHIP (1 semester - ½ credit - grades 11-12) Students will analyze current agricultural issues, determine how they affect people on all sides of the issue and enhance their written and oral communication skills by presenting their views and opinions to the class through debates, speeches, and interviews in order to be effective leaders in today's society. Students will gain the knowledge and leadership experiences to help them to become successful in life and in the workplace; thus, enhancing their potential for leadership development, personal growth, and career success. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AG 204 AGRICULTURE MATH (2 semesters - ½ credit per semester – grades 10-12) Math and agriculture are all around you, in everything you do, and wherever you live or work. This pre-algebra course is designed to give math a purpose by showing algebraic equations, ratios, formulas, measurement, and analysis of data through agricultural problems and activities. Math concepts will have a meaning by relating to the agricultural industry topics of land measurements, spraying ratios, storage of products by volume and area, fencing, taxes, net worth, merchandising, interpreting data, rafters, horsepower, fertilizer rates, electricity, concrete estimation, board feet, and temperature conversions. This course will spark students' enthusiasm for mathematics while involving their agricultural interests. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

AG 102 SUPERVISED AGRICULTURE EXPERIENCE (SAE) (1 semester – ¼ credit – grades 9-12) *Prerequisite: Currently or previously enrolled in an agriculture course.*

The student will have in operation, with a current supporting record book, an ongoing agriculture experience program which is approved by and supervised by the agriculture instructor. Exhibition of the agriculture experience program at the appropriate section fair is strongly recommended. The record book will be graded according to its currency at the end of each quarter and prior to exhibition. This course will allow students to remain active FFA members without enrolling in a daily agriculture course.

AG 202 FOOD SCIENCE TECHNOLOGY (1 semester – ½ credit – grades 11-12) This course provides learning experiences in food science and safety which allow students to apply scientific knowledge and processes to practices used in the development and preservation of food products. Issues of food science and safety are examined from a scientific and technological perspective. Students critically analyze information to evaluate and draw conclusions on the appropriate use of technology to implement food science and safety practices. Units of instruction include: principles of food preservation, food processing, biochemistry of foods, and food selection and consumer health. Students will use scientific and technological information about food science and safety as a part of developing career plans and personal viewpoints on societal issues concerning the development and preservation of food products. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts. Offered odd years.

AG 203 VETERINARY TECHNOLOGY (1 semester – ½ credit – grades 11-12) This course will develop students' understanding of the small and companion animal industry, animal anatomy and physiology, animal ethics and welfare issues, animal health, veterinary medicine, veterinary office practices, and animal services to humans. Career exploration will focus on veterinarian, veterinary lab technicians, office lab assistant, small animal production, research lab assistant, and animal nutrition lab technician. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts. Offered odd years.

AG 403 AGRICULTURAL BIOLOGY (2 semesters – ½ credit per semester – grades 9-10) Agricultural Biology is designed for freshmen and sophomores students interested in learning about food systems or the production, processing, distribution, and consumption of food products as well as the interactions of various aspects of food systems with the natural environment.

Agricultural Biology will cover all major topics in life science including biochemistry, ecology, cells, reproduction, heredity, biological evolution and diversity. The course will cover the majority of the Performance Expectations in the following Illinois Learning Standards in Science as well as a few physical, earth and space science, and engineering design performance expectations:

HS-LS1 - From Molecules to Organisms: Structures and Processes

HS-LS2 - Ecosystems: Interactions, Energy, and Dynamics

HS-LS3 - Heredity: Inheritance and Variation of Traits

HS-LS4 - Biological Evolution: Unity and Diversity

Specific emphasis will be placed on developing skills related to the Scientific and Engineering Practices and building Cross Cutting Concepts as students develop explanations for phenomena and solve real-world problems. Participation in FFA and Supervised Agricultural Experiences (SAE) are highly encouraged.

AG 310 AGRICULTURE SALES & MARKETING (1 semester – ½ credit per semester – grades 11-12) *Prerequisite: AG BUSINESS.*

This course is designed to develop student knowledge and skills in Agricultural Sales, Agribusiness Marketing, and Commodity Marketing. Instructional units include agricultural economic principles, marketing, and advertising, product development, sales techniques and strategies, communicating with employees and customers, managing risk, international agribusiness, and studying various agricultural companies and career opportunities. Student skills will be enhanced in math, reading comprehension, communications, and writing. Workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects are an integral course component for leadership development, career exploration, and reinforcement of academic concepts.

AG 311 AGRONOMY (1 semester – ½ credit per semester – grades 10-12) This course is designed to provide students with the knowledge and skills necessary for future employment in the agronomy or related industries. Major units of instruction include scientific method, cellular biology, genetics, biotechnology, soil classifications, soil erosion and management, soil fertility, plant classification, plant anatomy and physiology, plant propagation, plant growth, integrated pest management, grain, oil, forage, sugar, and fiber crop production methods, grain quality, grain storage, and grain transportation. Applied science and math skills and concepts will be stressed throughout the course as they relate to each area. Improving computer and workplace skills will be a focus. Participation in FFA student organization activities and Supervised Agricultural Experience (SAE) projects is an integral course component for leadership development, career exploration and reinforcement of academic concepts.

ART

AR 101 ART I (2 semesters – ½ credit per sem. – grades 9-12)

Art I is a beginning art course based on the art elements and principles of design, incorporating various art techniques and media usage such as painting, pen and ink, collage, printmaking, and three-dimensional work. Still life, perspective, figure, and portraiture drawing will also be covered. Art history is taught.

AR201 ART II (2 semesters – ½ credit per sem. – grades 10-12)

Prerequisite: Art I. Art II builds upon what is taught in Art I. The art elements and principles are still emphasized. Art II is a more in-depth study of various art media, starting with pencil drawing and pen and ink techniques. Painting is taught, beginning with watercolor, then acrylic, and finally oil paint. Other possible media includes printmaking, batik, pottery, collage, and scratchboard. Various artistic styles, artists, and cultures are also studied.

AR 301 ART III (2 semesters – ½ credit per sem. – grades 11-12)

Prerequisite: *Art I & II.* Art III builds upon the art elements, principles, the study of artists, different artistic styles and cultures, and various media in more of a studio setting. Assignments are more advanced than in Art II. Media may include sculpture, ceramics, painting, pencil, pen and ink, scratch board, printmaking, batik, and collage.

AR 401 ART IV (2 semesters – ½ credit per sem. – grade 12)

Prerequisite: *Art I, II, & III.* Art IV is an advanced art class based upon everything taught in Art I, II, and III. Once again, it is a studio-based class with more advanced assignments. Art elements, principles, artistic styles, techniques, and art history will be incorporated. Students may work toward developing a portfolio.

AR 302 Commercial Art (1 semester—1/2 credit—grades 11-12)

Prerequisite: *Art I & Art II.* Commercial Art will introduce students to basic techniques and principles of graphic work, learning about typography, illustration (both hand-drawn and computer-generated), and printed advertising. Recommended for those who think they might want to become a commercial artist.

AR 102 Art History (1 semester—1/2 credit—grades 9-12)

Art History class explores art movements, artists, and various artistic techniques. Involves some studio activities.
*updated 10/4/2011

BUSINESS

BU 201 CONSUMER ECONOMICS (1 semester - ½ credit – grades 9-12)

In this course, you will learn survival skills for the marketplace and become a more knowledgeable consumer, producer, and citizen. The course covers comparison shopping, fact-finding, negotiating, financial planning, budgeting, borrowing, saving, investing, banking services, business ethics, using credit wisely, purchasing automobiles, housing, insurance, government, taxes, and the U.S. economy. ***This class will fulfill your consumer economic requirement for graduation.***

BU 101 GENERAL BUSINESS (2 semesters – ½ credit per sem. – grades 10-12)

This course is designed to prepare students to deal with and become part of the contemporary business world. Subject areas covered are the free enterprise system, U.S. economy today, basic function of business, impact of world trade on our economy, decision-making process, impact of computer technology at home and in the work place, career planning, consumer rights and responsibilities, banking and financial services, use of credit, savings and investment strategies, insurance, and the role of government and labor in our economic system. ***This class will fulfill your consumer economic requirement for graduation.***

BU 301 ACCOUNTING FOR ENTREPRENEURS I (2 semesters – ½ credit per sem. – grades 11-12)

This is a course recommended for students who are planning a career in any business field or for students who need bookkeeping skills for their own use. It is designed to teach the fundamentals of keeping business records. The accounting cycle will cover a sole proprietorship, and a partnership. A simulation related to real accounting experience and personal tax preparation is also included.

BU 401 ACCOUNTING FOR ENTREPRENEURS II (2 semesters – ½ credit per sem. – grade 12)

Prerequisite: *Accounting for Entrepreneurs I.* This course is a continuation of Accounting for Entrepreneurs I focusing on corporations. This course will continue to emphasize corporate accounting, automated accounting, depreciation, inventory, financial statement analysis, and spreadsheet analysis. This class is highly recommended for someone planning a career in accounting or finance. Students will also have an opportunity to work on a simulated real world accounting practice set.

BU 302 YEARBOOK I (2 semesters – ½ credit per sem. – grades 10-12)

Prerequisite: *Desktop Publishing.* Students will develop a plan for the school's yearbook as well as physically creating layouts using the Internet. Students will be expected to attend outside activities in order to fulfill their assignments for photographs, which will be needed in their work. Scanning photos, creating photo captions and short text will also be required. In this class students will be expected to help fund the High School yearbook through community advertising and marketing.

BU 402 YEARBOOK II (2 semesters – ½ credit per sem. – grade 11-12)

Prerequisite: Yearbook. This course is a continuation of Yearbook. Students will take on journalism and editorial roles to develop leadership and management skills. Students will be expected to attend outside activities in order to fulfill their assignments for photographs, which will be needed in their work. Scanning photos, creating photo captions and short text will also be required. In this class students will be expected to help fund the High School yearbook through community advertising and marketing.

BU 303 BUSINESS LAW (1 semester - ½ credit – grades 11-12)

Business Law will cover the legal obligations and rights of areas such as computer law, financial crimes, legal careers, environmental law, international law, family law, ethics in our law, discrimination, sexual harassment and more. If the opportunity is available, the business law students will take a field trip to the Hancock County Courthouse for a look inside the courtroom.

BU 501 ENTREPRENEURSHIP: BUILDING A BUSINESS (2 semesters –½ credit per semester–grades 11-12)

Prerequisite: Computer Concepts. This class will help students understand the business and academic skills they need to build and manage a successful 21st century business. Students will learn about successful young entrepreneurs, web-based businesses, and traditional “brick and mortar” businesses. This course teaches entrepreneurs to state their business passion in practical terms with methods for analyzing their market and competition, setting achievable goals and focusing on a strategic business plan. Students will be able to apply the concepts learned by actually planning and creating a real life business.

BU 202 WEB PAGE DESIGN I (2 semesters – 1 credit – grades 10-12)

Prerequisite: Computer Concepts. In this class, students will learn to design and create web sites using a variety of tools. Students will learn to research domain names, create web pages, and maintain existing web sites. Students will be exploring web developing editors such as Dreamweaver and Expression. This is a “production” class. This class may be responsible for maintaining the activities section of the high school web site as well as creating new sites.

BU 203 DESKTOP PUBLISHING (1 semester – ½ credit– grades 10-12)

Prerequisite: Computer Concepts. Desktop Publishing is the process of electronically creating newsletters, brochures, letterheads, business cards, flyers, and other printed materials using text and graphics. Students will use Microsoft application, especially Microsoft Publisher to create layouts for many documents. This course will cover hardware, software, and graphic enhancements, as well as design and layout skills needed in the field of Desktop Publishing. The students will be producing useful material for school, business and personal use.

BU 601 DIGITAL PRODUCTION (2 semesters – ½ credit per semester– grades 10-12; can repeat for credit)

Prerequisite: Computer Concepts. This hands-on class provides basic instruction on how to use digital video cameras, and digital video editing software. We will learn the technique of taking video into the computer and editing it into a usable DVD format. Many projects will consist of photos, video clips, and audio clips. Possible projects could be sports highlight videos, school video, you tube projects, & daily announcements. Students will: create a video program that combines video, audio, and still images, using video editing software; learn the functions, settings & tools available; and learn how to capture/import video, pictures and music.

BU 102 COMPUTER CONCEPTS (1 semester – grades 9-12)

This class will focus on the correct technique and use of the computer. Students will learn advanced computer manipulation through document formatting with the use of a word processor. This class will also introduce students to basic presentation skills by using PowerPoint and students will have an opportunity to give a presentation in class. The use of the Internet as a research tool will also be explored. Students will extend their presentation skills by using advanced features of presentation software. This class will also cover advanced spreadsheet operations through various functions of spreadsheets. Students will also learn database entry. We will also have integrating procedures incorporated into the class. ***This class will fulfill your computer requirement for graduation.***

BU 103 COMPUTER APPLICATIONS (1 semester - ½ credit – grades 9-12)

Prerequisite: Computer Concepts. This class will help students become technologically literate by providing them with skills they can use either in college or in the business field. Students will extend their presentation skills by using advanced features of presentation software. This class will also cover advanced spreadsheet operations through various functions of spreadsheets. Students will also learn database entry. We will also have integrating procedures incorporated into the class.

BU 222 SPORTS MARKETING/MANAGEMENT (1 semester – ½ credit – grades 10-12)

Students will be using Microsoft Word, Excel, PowerPoint, Publisher, and Access while they create their “Dream Team.” Each student will decide on a sport, a league, and a name as they assume the role of a Microsoft Office Sports Marketing Specialist. Students will complete a series of real-world projects that are directly related to the team that they have created. In this class, students will develop a thorough understanding of marketing concepts and theories that apply to sports, events, and other business practices. This course is based on the business and marketing core that includes communication skills, distribution, marketing-information management, advertising, management planning, economics, pricing, product/service management, promotion, selling, operations, finance, legal and ethical issues, strategic management, and human resource management.

BU 900 CODING (1 semester – ½ credit – grades 10-12)

This class covers the fundamentals of programming in which students write and run JavaScript and Python programs. Students will be able to write both text based and block based JavaScript programs and will use Glowscrip to create graphical programs. They will also create webpages using HTML and JavaScript.

BU 902 ROBOTICS (1 semester – ½ credit – grades 10-12)

This class will be tasked with designing, building, programming, and controlling robots to perform specific tasks. Mindstorms, LabView, App Inventor and other programming languages will be utilized to control robot movements via servo motors and DC motors using input from various types of sensors.

BU 599 CREATING ENTREPRENEURIAL OPPORTUNITIES (CEO) (Year-long-2credits-grades 11-12)

CEO 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 create real like experiences for students. Businesses support the class by providing funding, expertise, meeting space, business tours, and one-on-one mentoring. Students tour 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.

Upon successful completion of the year-long course, students will receive:

2 high school credits

8 college credits towards the Small Business Management Certificate at Carl Sandburg College (Small Business Principles, Customer Service & Sales Fundamentals)

Students must complete an application process to participate in the class. Class size is limited.

ENGLISH

EN 101 English I (2 semesters – ½ credit per semester – grades 9-12)

English I is a course that reinforces and builds upon essential skills in grammar, vocabulary, reading comprehension, public speaking, and writing through class discussions, journals, and essays in literature, individual book reports, and creative group projects. These skills will be used in conjunction with various literature units such as a short story unit, plays, and novels which include *Romeo and Juliet*, and *Animal Farm*. Students will read and comprehend complex literary and informational texts independently and proficiently. The grammar units will include parts of speech, parts of a sentence, phrases, clauses, and punctuation. Grammar activities emphasize drill and application so that students learn to use appropriate standard grammar in life situations. All students who take English I will learn how to utilize Google Classroom, Google Docs., and Storyboard to complete assignments. Students will also be able to use the internet to obtain reliable information for assignments and reports to gain computer literacy.

EN 201 English II (2 semesters – ½ credit per semester – grades 10-12)

This course builds upon activities of English I to develop and practice skills in grammar, vocabulary, reading comprehension (especially complex texts), speaking, and writing. Discussions and projects become more advanced and require higher levels of critical thinking as students grow accustomed to confronting themes in literature and life. The skills will be practiced throughout literature units such as creative nonfiction, Shakespeare’s *Julius Caesar* or Sophocles’ *Anitgone*, short stories, and *Fahrenheit 451*. Writing assignments are related to literature and will include narrative, descriptive, expository, and persuasive styles. The grammar units include verbals, subject-verb agreement, complex sentence structure, and punctuation review.

EN 302 Oral Communication (1 semester – ½ credit– grades 11-12)

This class will cover basic communication, oral presentations, writing, and reading. The units include introductions, critical reviews of speeches and mass media, academic discussion in one-on-one, small-group, and whole-class settings in formal and informal formats. Throughout the year, students will gain, evaluate, and present increasingly complex information, ideas, and evidence through listening and speaking as well as through media.

EN 303 College Prep English III (2 semesters – ½ credit per semester – grades 11-12)

College Prep English is designed to help students learn how to write, read, speak, and listen effectively at the 11th grade level, as established by the Illinois State standards for the language arts. Writing skills will be honed through grammar and composition exercises, while reading skills – such as deciphering meaning, understanding irony, recognizing main ideas and themes, and understanding authorial intent – will be taught using works of American literature and informational documents found in today's media, research institutions, and national archives.

The goals of this course are to help students score well on the SAT test at the end of the year; provide the communication tools necessary to compete in future job markets; teach them how to understand, interpret, and deal with complex texts; prepare them to meet the academic challenges of a university; and aid their becoming well-rounded, productive civic and family leaders.

College Prep English places special emphasis on the particulars of essay writing and the reading of longer, more complicated texts in order to prepare students to succeed in freshman-level college English courses.

EN 301 English III (2 semesters – ½ credit per semester – grades 11-12)

English III is designed to help students learn how to write, read, speak, and listen effectively at the 11th grade level, as established by the national common core standards (needs changed to Illinois State Standards) for the language arts. Writing skills will be honed through grammar and composition exercises, while reading skills – such as deciphering meaning, understanding irony, recognizing main ideas and themes, and understanding authorial intent – will be taught using works of American literature and informational documents found in today's media, research institutions, and national archives.

The goals of this course are to help students score well on the SAT tests at the end of the year; provide the communication tools necessary to compete in future job markets; teach them how to understand, interpret, and deal with complex texts; prepare them to meet the academic challenges of a university; and aid their becoming well-rounded, productive civic and family leaders.

EN 401 English IV (2 semesters – ½ credit per semester – grade 12)

The purpose of English IV is to provide a challenging course that will give each student adequate information and practice to succeed in a college-level writing or literature course. To this end, students will be drilled in composition techniques, comprehension of complex fiction and informational texts, information regarding the major periods of British literary history, and discussion and presentation techniques in a group setting. Each student will be required to read thoughtfully, write logically and elegantly about the ideas and themes of each unit, and discuss material eloquently and cooperatively with peers.

English IV is designed to teach students to write, read, speak, and listen effectively at the 12th grade level, as established by the national common core standards (needs changed to the Illinois State Standards) for the language arts. To this end, reading skills – such as deciphering meaning, understanding irony, recognizing main ideas and themes, and understanding authorial intent – will be taught using both works of British literature and informational documents found in today's media and research institutions. An emphasis will also be placed on developing the writing and research skills necessary to thrive at a college or university, as well as communicate effectively in a standard workplace.

EN 444 Applicable English IV (2 semesters – ½ credit per semester – grade 12)

This course would involve applications to the job-force, including the community partnership for entrepreneurs, and do a research project, business writing skills, practical communication skills, voicing opinions in proper settings, among other useful, real-world techniques.

EN 202 Creative Writing 1 semester—1/2 credit per semester—grades 11 and 12)

This course is designed for the student who enjoys writing and having more freedom of expression and style than in the standard English essay. Students will learn the techniques necessary to improve their writing such as style, diction, and descriptive and characterization techniques by analyzing professional writers' work. Students will write extensively while experimenting with a variety of forms. Original work will be analyzed through group discussion. Participants will build a portfolio that contains work under constant revision until a few select pieces reach publication status.

EN 406 Mass Media (2 semesters—1/2 credit per semester—grades 11 and 12)

This course is devoted to the development of journalistic skills as they apply to mass media. Units may include the history of the newspaper and mass media, news writing, editing, vocabulary, public relations, style, layout and design, and other aspects of journalistic writing. Students in this course will produce a regular school news related website for mass consumption.

EN 403 Journalism (2 semesters – ½ credit per semester – grades 11-12)

This course would include editorial writing, proper journalistic formatting, prepping and producing a monthly student paper, critiquing various media, establishing credibility as a writer, performing proper interviews, analyzing and creating propaganda in various ways, and other skills.

FAMILY & CONSUMER SCIENCE

FA 101 INTRO. TO FAMILY & CONSUMER SCIENCE (FCS) (2 semesters – ½ credit per sem. – grades 9-12)

This course introduces students to the field of family and consumer sciences and the many career opportunities available in this broad field. The course includes theory and laboratory experiences in the following content areas: foods and nutrition; textiles and design; family, career, and community leadership development; resource management; housing design, care, and management; and interpersonal relationships and life management skills. ***Introduction to FCS will fulfill your consumer economic requirement for graduation.***

FA 201 CLOTHING & TEXTILES (1 semester – ½ credit – grades 10-12)

Prerequisite: Intro to Family & Consumer Science or previous sewing experience. This course provides students with opportunities to develop knowledge and understanding of textiles, fashion, and fabrics. The course content will center on clothing construction, pattern manipulation, alteration techniques, and recycling projects. Information about the psychological aspects of clothing and careers related to clothing, fashion, and textiles will be included. **Class offered alternate years (even).**

FA 202 FOODS & NUTRITION I (1 semester – ½ credit – grades 10-12)

This course includes basic classroom and laboratory experiences needed to develop knowledge and understanding of basic culinary preparation, principles of food science; and applied nutrition for people of all ages. The course content centers around the following areas of study: understanding the food supply; shopping and storage of food; safety and sanitation principles; abbreviations, equivalents and conversions of recipes; kitchen math skills; and terms and methods related to food preparation.

FA 402 FOODS & NUTRITION II (1 semester – ½ credit – grades 10-12)

This course includes basic classroom and laboratory experiences needed to develop knowledge and understanding of basic culinary preparation, principles of food science; and applied nutrition for people of all ages. The course content utilizes the knowledge gained in foods and nutrition I and emphasizes the following areas of study: nutrients and their functions within our bodies; food groups and their contribution to wellness; etiquette; related career opportunities; international foods; and culinary techniques.

FA 301 PARENTING (2nd semester – ½ credit – grades 11-12)

(Prerequisite: Minimum C average in child Development or instructor's permission)

This course is designed to help students think through the responsibilities, satisfactions and stresses of parenthood. Special attention is given to the importance of readiness for parenthood. An in-depth study of the intellectual, physical and social-emotional development of children from infants through adolescence will be covered so that parenting skills can be applied to these stages of development; as well as information on types of families, parenting children with special needs, balancing family and careers, and the importance of play.

FA 203 CHILD GROWTH & DEVELOPMENT (1st semester – ½ credit – grades 11-12)

This course focuses on contraceptives, reproduction, prenatal development and childbirth. The students will gain knowledge of their reproductive systems as it relates to conception and prenatal development. An in-depth study of prenatal development for both the mother and the child will be covered. An understanding of intellectual, physical, and social-emotional development during pregnancy will be addressed for the mother, father and the unborn child.

FA 204 CHILD CARE OPERATIONS (1 semester – ½ credit – grades 10-12)

Prerequisite: *Child Growth & Development and Parenting*. This course is designed for students who might be considering a career related to education, social services or other helping professions. Review of the physical, mental, social and emotional development of the child is included along with the planning and implementing of developmental activities for children. Students will receive on site experiences at either the local Head Start Program or Preschool at Risk Program. Literacy, math and science lessons will be developed as projects in this course as well as being a primary wing aide.

FA 205 INTERIOR DESIGN & FURNISHINGS (1 semester – ½ credit – grades 10-12)

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 occupants. The selection and care of housing and furnishings are related to factors such as socio-economic conditions, individual tastes, aesthetic values, safety, sanitation, and energy conservation. Students will be required to design houses using a CAD housing program.

BU 403 COOPERATIVE WORK & BU 404 INTERRELATED CLASS (2 semesters–1 1/2 credits per sem. – grade 12)

To be eligible for cooperative vocational education, the student must have passed at least one year (two semesters) of coursework in one of the following areas: Agriculture, Business, Family and Consumer Science, or Industrial Arts.

Cooperative education is a capstone course designed to assist students in the development of effective skills and attitudes through practical instruction in school and on the job. This course is designed for seniors who desire on the job training in a vocational area. Students must take an interrelated class where the course content includes the following broad areas of emphasis: future career opportunities; job-seeking skills; personal development; human relationships; legal protection and responsibilities; personal household management skills; and ethics in the workplace. The students are trained by the sponsoring business which is coordinated by the classroom teacher. Training plans and training agreements are used. Students must work a minimum of 15 hours per week and are paid for their work experience.

FOREIGN LANGUAGE

Spanish is a college prep courses, two to three year of a foreign language is a requirement for admission to most colleges and universities. Having successfully completed four years of foreign language will sometimes fulfill a college graduation requirement. Communication will include all modes: interpersonal, interpretive and presentational.

SP 101 SPANISH I (2 semesters – ½ credit per sem. – grades 9-12)

The purpose of Spanish I is to introduce the four skills of a foreign language: listening, speaking, reading, and writing. The emphasis is on an elementary level of oral proficiency in everyday situations with culture integrated into each unit. This is a college prep course.

SP 201 SPANISH II (2 semesters – ½ credit per sem. – grades 10-12)

Prerequisite: *Spanish I*. The purpose of Spanish II is to reinforce the skills acquired in level I and includes more intense study and practice in listening, speaking, reading and writing. Grammar and vocabulary will be stressed and supplemented with cultural units. A Spanish II student must have successfully completed two semesters of Spanish I.

SP 301 SPANISH III (2 semesters – ½ credit per sem. – grades 11-12)

Prerequisite: *Spanish II*. The purpose of Spanish III is to give students who are interested in a foreign language the opportunity to study the language in depth. The emphasis is on reading and writing skills with oral activities to reinforce increased proficiency levels. Numerous techniques are used to continue the integration of culture. A Spanish III student must have successfully completed two semesters of Spanish II.

SP 401 SPANISH IV (2 semesters – ½ credit per sem. – grade 12)

Prerequisite: Spanish III. The purpose of Spanish IV is to give students a broader vocabulary base through idioms and subtle language nuances. The emphasis is on refinement of grammatical structures and in-depth listening, speaking, reading and writing through exposure to authentic cultural materials. A Spanish IV student must have successfully completed two semesters of Spanish III.

INDUSTRIAL TECHNOLOGY

IT 101 INTRODUCTION TO INDUSTRY (2 semesters – ½ credit per sem.– grades 9-10)

This freshman and sophomore level course is designed to introduce the students to various skills and occupations in today's world of work. The student is involved with planning and designing projects to build, mechanical drawing, mass production of an item, woodworking, various engineering projects, welding, and career opportunities in other fields such as mechanics, electricity, and construction.

IT 201 INTRODUCTION TO METALS (1 semester – ½ credit – grades 10-12)

This course is designed to familiarize the student with the fundamentals of metal manufacturing. Conventional machine tools as well as computer aided machining will be covered along with welding. Student outcomes will include development of projects that reflect the students understanding of metal processing used in industry.

IT 202 WOODS (1 semester – ½ credit – grades 10-12)

Prerequisite: Introduction to Industry. This course is designed to familiarize the student with all aspects of woodworking; safe use of all tools and machines, designing and planning, joinery, and finishing. Student outcomes will include the development and completion of a project(s) that reflects student understanding of wood working processes. Students will supply their own material for this class.

IT 204 INTRODUCTION TO CONSTRUCTION (1 semester – ½ credit – grades 10-12)

This class consists of planned learning experiences designed to introduce the student to construction-related occupations and the knowledge and skills needed for these occupations. Areas of instruction include tools, materials, techniques, equipment, and processes utilized in the field of construction.

IT 205 RESIDENTIAL WIRING (1 semester – ½ credit – grades 10-12)

This course will introduce students to basic residential and commercial wiring practices. Students will be required to diagram, construct and troubleshoot a number of different circuits. Relays, fusing, transformers, generators and electric motor wiring and maintenance will also be covered.

IT 206 POWER SYSTEMS/SMALL ENGINES (1 semester – ½ credit – grades 10-12)

This class is designed for the student to understand the basic principles of the two-stroke and four-stroke internal combustion engine. The small engine lab is designed for overhaul, repair, reconditioning, and engine troubleshooting. The student will furnish his/her own engine for the last segment of the class.

IT 102 AutoCAD (1 semester – ½ credit – grades 10 – 12)

This course is designed to familiarize the students with the basic concepts of using a computer aided design and drafting program. This course will use autosketch and autoCAD programming. Students will create and design 2d, isometric, and layered drawings used in the engineering field.

WA 316 Welding Technology and Metal Fabrication

Welding Technology and Metal Fabrication is a one or two year program for students seeking a career in one of the many occupations that require a combination of welding and metal fabrication skills. Students will get hands-on welding experience in the use of SMAW, oxy-acetylene, GMAW, and GTAW welding equipment. Students will use cutting equipment including the plasma arc cutter, oxy-acetylene torch, band saw, shear, punch, and several grinding processes.

WA 403 Welding Technology and Metal Fabrication I (2 semesters – grades 11-12)

The first year is designed to provide each student the opportunity to develop confidence in his or her ability to perform competencies in a wide variety of manufacturing careers. Students will receive instruction in safe practices while learning material and process selection. Students will develop basic skills in the correct use of tools and equipment. In addition facility maintenance, inventory, and record management are concepts learned by the students.

Welding Technology and Metal Fabrication II (2 semesters – grades 11-12)

The second year is designed for students to expand on the skills they acquired during WT/MF-I. Lab experiences are designed to produce advanced skills for the student in a variety of metal fabrication techniques. Students are also given the opportunity to specialize in a specific area of metal fabrication. Students will also develop a working knowledge of the uses of both ferrous and non-ferrous metals in fabrication activities.

MATH

MATH CONCEPTS (2 semesters- $\frac{1}{2}$ credit per sem-9-12) Pre-Requisite: Referral of 8th Grade Math Teacher. Math Concepts is designed for the student who needs a review of Basic Math skills. This course is an entry level course designed to review Basic Adding, Subtraction, Division, Fraction, Percentages, Measuring, Basic Algebra skills, mean, median, and mode, data plots. Real life situations and problem solving are provided in all topic areas. This class prepares students to take Basic Algebra. (Formerly **ALGEBRA IA**)

BASIC ALGEBRA-(2 semesters- $\frac{1}{2}$ credit per sem. Grades 9-12) Pre-requisite: Math Concepts or Referral of 8th Grade Math Teacher. Basic Algebra is designed for the student who needs a slower paced Algebra class. Topics covered will include: mathematic operations with real numbers, solving linear equations and inequalities, graphing linear equations, functions, and inequalities, writing linear equations, and some basic statistics topics (probability, odds, data plots, mean, median, and mode). Real-life situations and problem solving are provided in all topic areas. (Formerly **ALGEBRA IB**)

MA 102 ALGEBRA I (2 semesters – $\frac{1}{2}$ credit per sem. – grades 9-11)

This is a traditional college prep course that covers the major topics of algebra and some statistics concepts. Topics include mathematic operations with real numbers, solving and graphing linear equations and inequalities, solving and graphing quadratic equations and inequalities, mathematic operations with exponents, radical expressions and polynomials, and factoring polynomials and some statistics topics. Real-life situations and problem solving are provided in all topic areas. This course is a pre-requisite for Geometry and Algebra II.

MA 201 BASIC GEOMETRY (2 semesters – $\frac{1}{2}$ credit per sem. – grades 10-11)

Change pre-requisite to Algebra I: Prerequisite: Basic Algebra I or Algebra 1A. Basic Geometry is an informal course that introduces students to the study of basic geometric concepts and figures. The emphasis is on problem solving and application problems. Some review of algebra skills will be done with development of new skills. Various topics concerning geometric figures (points, lines, planes, angles, triangles, polygons, and circles) are explored. This would include using formulas for areas and volumes. Some coordinate geometry and constructions would be involved. This course is not intended for the above average Algebra I student.

MA 401 PERSONAL FINANCE/BUSINESS MATH (2 semesters – $\frac{1}{2}$ credit per semester – grades 11-12)

Personal Finance/Business Math is designed for students planning on a vocational career, and to assist students to learn to use mathematics effectively as a tool in their personal and business lives. It begins with a review of mathematical operations using whole numbers, decimals, and fractions. Topics considered are encountered by adults in the course of their everyday living. Some examples of topics covered are calculating tips, wages, and payroll deductions; calculating premiums for car loans, mortgages, health and life insurance; filing income taxes; managing bank accounts; and calculating sale prices. Business topics can include personnel and production costs; trade and chain discounts; markup rates and profit; and sales projections. It counts as one credit toward the math requirement for graduation.

MA 103 GEOMETRY (2 semesters – $\frac{1}{2}$ credit per sem. – grades 9-12)

Prerequisite: Algebra I. Geometry is an integrated study of two-and three-dimensional relationships between points, lines, and planes. Computation and algebra review is included. Elementary logic is introduced to assist the student in understanding the deductive reasoning process in proofs. Deductive reasoning is then used to prove relationships between geometric figures. Other topics include quadrilaterals, similarity, congruence, circles, area, volume, and a basic introduction to trigonometry. This course is considered to be a college prep course. This course may be taken at the same time as Algebra II if the student received a grade of 'B' or higher in Algebra I.

MA 202 ALGEBRA II (2 semesters – $\frac{1}{2}$ credit per sem. – grades 10-12)

Prerequisite or Co-requisite: Geometry. Algebra II is a college prep course with a rigorous review of Algebra I, followed by an introduction to essential topics from college algebra. Topics included are the study and graphing of linear, quadratic, exponential, logarithmic, rational, other polynomial, and trigonometric functions. Inequalities, matrices, radicals, complex numbers, and conic sections will also be included. Graphing calculators will be used periodically throughout the course and provided by the instructor for classroom use. This course may be taken at the same time as Geometry if the student received a grade of 'B' or higher in Algebra I.

MA 404 COLLEGE PREP MATH (2 semesters – ½ credit per sem. – grade 12)

Prerequisite: 3 years of math that must include Algebra and Geometry/Basic Geometry.

Math course framework designed to prepare and transition students directly into college and career pathways requiring general education college level math competencies in quantitative literacy and statistics. The competencies within each domain should include but are not limited to: numeracy (operation sense, estimation, measurement, quantitative reasoning, basic statistics, and mathematical summaries), application based algebraic topics, and functions and modeling. Upon completion students should be able to: demonstrate proficiency and understanding in basic numeracy competencies in whole numbers, integers, fractions, and decimals, use estimation and explain/justify estimates, apply quantitative reasoning to solve problems involving quantities or rates, use mathematical summaries of data such as mean, median, and mode, use and apply algebraic reasoning as one of multiple problem-solving tools, and use functions and modeling processes. Course to be delivered through authentic application, problem-based instruction designed to build mathematical conceptual understanding and critical thinking skills. In accordance with and subject to the PWR Act, successful attainment of transitional mathematics competencies in the Quantitative Literacy and Statistics Pathway guarantees student placement into a community college General Education Core Curriculum (GECC) mathematics course which includes general education statistics (M1902), general education mathematics (M1904), quantitative literacy (M1901), or elementary math modeling (M1907).

MA 302 TRIGONOMETRY/PRE-CALCULUS (2 semesters – ½ credit per sem. – grades 11-12)

Prerequisite: Algebra II. Pre-calculus is a rigorous study of advanced algebra topics, including polynomial functions and their manipulation, exponential and logarithmic functions, complex numbers, and conic sections. Topics may include polynomial functions and their manipulation, exponential and logarithmic functions, polar coordinates and complex numbers, and conic sections. Trig topics include right triangle and circular functions, identities, graphs, and Laws of Sines and Cosines. This class prepares the student for the study of calculus and other college mathematics courses. Graphing calculators will be used extensively in this class.

MA 402 CALCULUS (2 semesters – ½ credit per sem. – grade 12)

Prerequisite: Trig/ Pre-calculus with a B average. This course is designed for the most mathematically talented students, interested in pursuing a math, science, or engineering major in college. Derivatives and integrals are carefully developed as applications of the limit concept. These ideas are extended to algebraic, trigonometric, and logarithmic functions. Applications in physics, business, and other sciences use related rates and maximums/minimums. A graphing calculator will be required for this class.

MUSIC

MU 101 BAND (2 semesters – ½ credit per sem. – grades 9-12)

Prerequisite: Jr. High Band Participation. In addition to classroom activities, students have the opportunity to perform at several events, including concerts and contests throughout the year. Students are involved in marching, concert and pep band and have the opportunity to audition for jazz band.

MU 201 CHORUS (2 semesters – 1/2 credit per sem. – grades 9-12)

High School Chorus is open to all 9-12 grade students. No audition is required. Students improve music reading skills while singing various examples of different cultures from ancient times to the present. High School Chorus members participate in various concerts and contest as well as other activities.

HEALTH / PHYSICAL EDUCATION / DRIVERS ED

HE 101 HEALTH (1 semester – ½ credit – grade 9)

Students are taught in-depth information in personal dress and grooming, family planning, growth and development, communicable disease and its control, and wellness as it relates to the physical, mental, and social aspects of health. In addition, students will be given information on CPR and first aid. Course objectives also include; developing responsible decision making skills, understanding the forces in daily life which affect and have consequences upon the quality of life, and understanding human potential and relating this potential to the common areas within health education.

PE 101 PHYSICAL EDUCATION (offered each semester – 1 credit per year – grades 9-12)

Students will participate in a program, which is geared toward the development of physical, intellectual, emotional and social fitness and well-being. It will include a variety of exercises and activities that are designed to maintain and/or promote physical development. An important goal of the physical education course is to develop an appreciation of activity so that individuals will continue to be active and live a healthy lifestyle after high school. Activities will include individual and team sports, rhythms and dance as well as basic exercise physiology. A cardiovascular segment will be completed every class. The anatomy and physiology of the human body will also be reviewed as specific activities allow.

PE 102 AEROBIC PERSONAL FITNESS (offered each semester – 1 credit per year – grades 9-12)

The Illini West High School Walking Fitness program is designed to guide students to become physically fit and set lifelong goals towards a fitness program suited for them. Students will walk during the class period while tracking their progress over the course of the semester. Walking is the first step in working towards other activities and expanded conditioning programs. This course is appropriate for students of all fitness levels and will review the importance of cardiorespiratory health, goal setting, levels of training, proper nutrition and hydration, and safety/injury prevention.

PE 103 WEIGHT TRAINING (offered each semester – 1 credit per year – grades 9-12)

This physical education elective is designed for any student serious about reaching their physical maximum potential in strength and fitness. Emphasis will be placed on flexibility, agility, plyometrics, and weight training. A core workout and a cardiovascular workout segment will be completed every class. Students will set goals in all areas and record their individual progress throughout each semester.

*While in weight training all students must receive a grade of C- or higher at the end of the semester in order to stay. If a student does not achieve a C- or higher at the end of a semester, they will be removed from weight training and put into general physical education for the minimum of one semester. Students will also be immediately moved from Weight Training to PE upon their third time not dressing out for the semester.

PE 105 UNIFIED PHYSICAL EDUCATION (offered each semester – 1 credit per year – grades 10-12)

Unified Physical Education (P.E.) is a unique opportunity for students of varying ability levels and backgrounds to come together on equal terms through ongoing fitness, sports, leadership and wellness activities. Unified P.E. focuses on the physical, intellectual and social growth of all participants. Engaging in physical activity and sport alongside peers with and without disabilities helps to foster important social relationships.

DE 101 DRIVERS ED. (1 quarter changed to 1 semester – ½ credit – grades 9-10)

Students may enroll in Drivers Education during the semester in which they turn 15. The course includes 30-clock hours of classroom instruction and 6-clock hours of behind-the-wheel. Classroom instruction includes a study of Rules of the Road and correct driving procedures. Behind the wheel instruction provides each student with sound guidelines for the development of his/her driving skill. The class is required for graduation.

*If a student is 15 years of age prior to November 1st, they should be enrolled in the classroom portion during the 1st semester. If a student turns 15 between November 1st-May 31st, they should be in the classroom during the 2nd semester.

*The student may or may not take the classroom portion and behind the wheel portion of Driver's Education during the same semester. Behind the wheel must be completed within one calendar year from the date the student completed the classroom.

*A student must pass 8 (eight) classes the previous 2 semesters to be enrolled in Driver Education.

SCIENCE

The recommended four-year plan for the college-bound student is to take four years of course work from the following: Biology I, Anatomy & Physiology, Chemistry I, Chemistry II and Physics. It is strongly recommended that sophomores and juniors be enrolled in a science course in order to prepare for standardized testing.

Sc 101 GENERAL SCIENCE (1 semester – ½ credit – grade 9)

The overall purpose to general science is to give the student the basic knowledge of scientific methods and organizing and interpreting data along with an understanding of the four general areas of science: life, chemistry, earth and space, and physical. This class is designed to prepare students for the biology course load. Course work includes activities and lectures.

Sc 103 LIFE SCIENCE (1 semester – ½ credit – grade 9)

Life Science is a course covering very basic biology and basic anatomy. Topics include the basis of life and human body systems. This course is designed to prepare students for the biology course load. Course work includes lecture and activities.

Sc 102 BIOLOGY I (2 semesters – ½ credit per sem. – grades 9-11)

Biology I is a college prep course designed for the underclassman. It begins with the introduction to life processes, the cell and its activities (including photosynthesis, respiration and protein synthesis) and DNA. Genetics is included as a component. A brief unit is placed on ecology and how humans are affecting the environment. Course work includes lectures and laboratory activities.

Sc 201 BIOLOGY II (2 semesters – ½ credit per sem. - grades 10-12)

Prerequisite: Passing grade in Biology I. Biology II continues our study of the living world around us. The study of genetics will follow and consist of gene manipulation, DNA technology, and research on genetic disorders. Emphasis on Darwin's Theory of Natural Selection will include a virtual trip to the Galapagos Islands. The course will conclude with botany, which consists of studying the structure, function, identification, and diversity of plants. Course work includes lecture and lab activities. Taxonomy discussion leads to work involving the five kingdoms.

Sc 202 EARTH SCIENCE (1 semester – ½ credit – grades 10-12)

Prerequisite: Two semesters of science.

Earth Science is the study of Earth's composition and rock, water and weather systems. Subject areas are: Geology – Earth's history, plate tectonics, earthquakes, and volcanoes; Meteorology – Earth's climates and weather patterns; Oceanography – marine life; and Ecology – Earth's fresh water and salt water systems. This course is not intended for the college-bound student.

Sc 205 BASIC CHEMISTRY (1 semester – ½ credit – grades 10-12)

Prerequisite: one year of science.

This course will cover very basic chemistry. Topics include measuring, properties of matter, density, changes of state, the periodic table, parts of an atom, types of chemical bonds and substances. This course is not intended for the college-bound student.

Sc 206 BASIC PHYSICS (1 semester – ½ credit – grades 10-12)

Prerequisite: one year of science.

Physics topics will be covered through experimentation and discussion in the areas of mechanics, waves, heat and electricity. This course is not intended for the college-bound student.

Sc 303 ASTRONOMY (1 semester – ½ credit – grades 11-12)

Prerequisite: 2 semesters of science.

Astronomy is the study of the past, present and possible future of the universe. Material covered will include the formation of solar systems, stars and galaxies and the technologies used to understand them. This course is not intended for the college-bound student.

Sc 304 FORENSICS I (1 semester – ½ credit – grades 12)

Prerequisite: 2 semesters of science.

Students will be able to critically think through and formulate problems, identify and investigate probable solutions, properly collect and scientifically evaluate data, record results and draw logical conclusions based on evidence, apply data to the given authentic situation, evaluate the most effective means of delivering the information, and communicate the results of the work while studying issues of biology (odontology, anthropology, botany, entomology). This course is not intended for the college-bound student.

Sc 314 FORENSICS II (1 semester – ½ credit – grades 12)

Prerequisite: 1 semester of Chemistry (Basic or Chem I) and Forensics I

Students will be able to critically think through and formulate problems, identify and investigate probable solutions, properly collect and scientifically evaluate data, record results and draw logical conclusions based on evidence, apply data to the given authentic situation, evaluate the most effective means of delivering the information, and communicate the results of the work. Students will get an introduction to forensics. They will learn about physical properties of glass, soil, and sand. They will learn about types of toxicology and how to test and analyze drugs and do paper chromatography. They will analyze documents for handwriting, ink analysis, forgery, and voice patterns.

Sc 204 ANATOMY AND PHYSIOLOGY (2 semesters – ½ credit per sem. – grades 11-12)

Prerequisite: Passing grade in Biology I. Anatomy and Physiology is for the advanced biology student. Beginning with a brief overview of the cell and its functions, the student then learns more about basic tissues. The course continues working through the 10 body systems and discussing them in detail. Course work includes lecture, discussion and lab work. The microscope is used extensively as well as various dissections: brain, eye, heart, and cat. A field trip to St. Louis University's cadaver demonstration is a highlight. This course is designed for the college-bound student.

Sc 301 CHEMISTRY I (2 semesters – ½ credit per sem. – grades 10-12)

Prerequisite: Successful completion of Algebra I and Biology I. Chemistry I is a study of materials, their composition and structures and the changes they undergo. Course content includes measurement and problem solving; atomic theory; periodic relationships; chemical bonding; chemical compounds, formulas, equations, and reactions; gas laws; phases of matter; and introduction to acids and bases. Lab experiments, videos, and projects supplement the text and lecture material. This course is designed for the college-bound student.

Sc 401 CHEMISTRY II (2 semesters – ½ credit per sem. – grade 11-12)

Prerequisite: Chemistry I. Chemistry II is a continuation of Chemistry I. Course content will include solutions and their behavior; chemical reactions; organic chemistry; acid & base theory; thermodynamics; chemical equilibrium; and qualitative analysis. Lab experiments, videos, and projects will supplement the text and lecture material. This course is designed for the college-bound student.

Sc 302 PHYSICS (2 semesters – ½ credit per sem. – grades 11-12)

Physics will cover the major topics: mechanics, waves, heat and electricity. A working understanding of trigonometry is required. The emphasis will be on the applications of these topics in design, programming, and robotics. Lab experiments and project based learning will supplement the text and lecture material. This course is designed for the college-bound student. The class will focus on one quarter of traditional (Newtonian) physics, one quarter of 3-D design and build, one quarter of coding, and one quarter tying everything together.

SOCIAL STUDIES

SS 201 CIVICS (1 semester – ½ credit – grades 10-12)

This course will introduce students to their American government! It looks at the local, state, and national levels and identifies the system of 'Checks and Balances' that exist between them. The students will read text, documents, articles, manuscripts, etc. throughout the semester. Students will also learn about the American Flag & citizenship. All in all, the students must acquire a working knowledge of his/her own government in order to pass. **The passing of the Illinois and U.S. Constitution tests are required for high school graduation!**

SS 101 GEOGRAPHY (1 semester – ½ credit – grades 9-12)

This is a survey course of the planet Earth. It looks at a variety of countries, landforms, cultures, ecosystems, governments, etc. across the world. The semester starts with an introduction to the basic themes of geography and then goes into physical geography. From there we will discuss human geography and world cultures. Students will be required to conduct a research project on a particular continent.

SS 304 SOCIOLOGY (1 semester – ½ credit – grades 11-12)

Sociology is a college preparatory course that encourages the students to think and ask why? It examines groups of people in attempt to discover what it is that influences them. We are also interested in what effect individuals have on the world around them. Some of the different themes covered are: gender, race, religion, family, etc. The students will also be required to write a term paper in order to complete this course.

SS 302 WORLD HISTORY (2 semesters – ½ credit per sem. – grades 11-12)

This course is broken down into two halves – early and modern. During the first semester we will focus on ancient societies. These include the Egyptian, Greeks, Romans, and Chinese. We will also venture into the Middle Ages of Europe. The students will be asked to take a significant amount of lecture notes and will have to identify a large number of people and vocabulary words. At the same time, the students will choose a topic that relates to world history and develop a presentation that will be used as their semester exam. The second semester is spent on modern events such as the age of discovery, major revolutions, the impact of industry and technology, world wars, etc. In this semester the students will again develop a presentation as their semester exam. Both exams will be over the time periods we touch on during the specific semester. Also the students will be asked to do current events on some of the Fridays. Where they will bring in a current event and write a short paper on it. The class will discuss the current events brought in by the students. This is not a course for those who are not interested with the past and cause and effect.

CONTEMPORARY HISTORY (2 semesters – ½ credit per semester– grades 11-12)

We start with the conflicts in the Middle East in the 1990s and we attempt to study events all the way up to the present day. This class is for those students who have a deep interest in history and current events. This is a project/presentation-based class. Students will be researching various parts of each subject. Subjects include the Persian Gulf War, September 11th attacks, Domestic Terrorism, and more.

U.S./AMERICAN HISTORY (2 semesters – ½ credit per semester – grades 11-12)

This is a required course. The course will begin with the exploration of Europeans and the discovery of Jamestown. We will follow through American History exploring the major events, people, and places that shaped our nation. We will discuss historical facts and social issues and how they came to be as well as what their effects were. We will go over what role America played in relation with the rest of the world. This course will bring the student up to the time period of the 1980s-1990s.

SS 402 CONFLICTS AND MYSTERIES (2 semesters – ½ credit per semester – grade 12)

Prerequisite: U.S./American History. This course is a very active hands-on course. Because of the level, method, and material we go over, the students are expected to act and work in a college style atmosphere. We will do at least one major group presentation each quarter. We will also be involved with an interactive field trip or special activity. We will attempt to do this at least once a quarter. While we do have some work from the test this is an extremely interactive course. We do a lot of direct interaction with the military, local and state police, and criminal corrections department.

1st semester will begin with the Revolutionary War period and travel through to the time era of the American Civil War. We will cover a wide variety of conflicts and various mysteries of that time era. We will cover important people, events, mysteries, and conspiracies and how they unfolded and affected the people of America and the world as a whole. We will cover other various conflicts and mysteries as time allows.

2nd Semester will begin with the post-American Civil War time period, better known as the reconstruction period. This semester we will travel up to the Vietnam War era. We will cover a wide variety of conflicts and various mysteries of that time era. We will cover important people, events, mysteries, and conspiracies and how they unfolded and affected the people of America and the world as a whole. We will cover other various conflicts and mysteries as time allows.

DUAL CREDIT COURSES (COLLEGE & HS CREDIT)

Students should refer to the Carl Sandburg College current catalog for the course description and college credit earning potential of the following dual credit classes offered. Those credits listed are indicated for high school credit for graduation purposes. The grade earned in these courses will apply towards the student's high school grade point average (GPA). Note that Carl Sandburg College policy stipulates a **minimum of ten student enrollments** in order for the course to be offered.

- DC 405 GENERAL PSYCHOLOGY** (1 semester – ½ credit – grades 11-12)
- DC 406 INTRO TO PHILOSOPHY** (1 semester – ½ credit – grades 11-12)
- DC 401 FRESHMAN COMP I (COLLEGE ENGLISH)** (1 semester – ½ credit – grade 12)
- DC 402 FRESHMAN COMP II (COLLEGE ENGLISH)** (1 semester – ½ credit – grade 12)
- DC 403 INTRO TO SPEECH** (1 semester – ½ credit – grade 11-12)
- DC 407 SOCIOLOGY** (1 semester – ½ credit – grade 11-12)
- DC 414 INTRO TO AMERICAN MUSIC** (1 semester – ½ credit – grade 11-12)
- DC 411 ENVIRONMENTAL SCIENCE** (1 semester – ½ credit – grade 11-12)
- DC 422 CONCEPTS OF MATH (MATH 109)** (1 semester – ½ credit – grade 11-12)
- DC 421 STATISTICS (MATH 110)** (1 semester – ½ credit – grade 11-12)
- DC 404 COLLEGE ALGEBRA (MATH 130)** (1 semester – grade 12)
- DC 430 CALCULUS FOR BUSINESS (MATH 132)** (1 semester – ½ credit – grade 12)
- DC 415 AMERICAN GOVERNMENT & POLITICS** (1 semester – ½ credit – grade 11-12)

Students are allowed to enroll in any Carl Sandburg class that they meet criteria for, including any pre-requisites.