

HILLSBORO HIGH SCHOOL

COURSE DESCRIPTIONS

(updated February 2025)

AGRICULTURE

EXPLORING THE FUNDAMENTALS OF AGRICULTURE (INTRODUCTION TO AGRICULTURE)

OPEN TO GRADES: 9- 10
PREREQUISITES: None
LENGTH OF COURSE: 1 year
CREDIT: 1 credit
COURSE DESCRIPTION:

Exploring the Fundamentals of Agriculture is a yearlong course that is highly recommended as a prerequisite and foundation for all other agricultural classes. The nature of this course is to provide students with an introduction to careers and the fundamentals of agricultural science and business. Areas to be covered include: agricultural literacy, its importance and career opportunities, plant and soil science, environmental science, horticulture and landscape management, agricultural biotechnology, agricultural science and business tools and equipment, basic principles of and employability in the agricultural/horticultural industry, basic agribusiness principles and skills, developing leadership skills in agriculture, and supervised experience in agriculture/horticulture purposes and procedures. Student learning objectives are defined. Instruction includes not only agriculture education standards but many academic standards are included through the use of “hands-on” problem-solving individual and team activities.

AG SCIENCE

OPEN TO GRADES: 10-12
PREREQUISITES: Exploring the Fundamentals of Agriculture
LENGTH OF COURSE: 1 year
CREDIT: 1 credit
COURSE DESCRIPTION:

This course specializes in agriculture production. Topics include soil science, agronomy, livestock production, and farm machinery production. We will focus time on crop production principles: plant biology, soil fertility and management, selecting crops & seeds, major economic crop production. This class is also designed to introduce students to animals used in agricultural production along with a few companion animals. Students will learn what part each animal plays in today’s society, their anatomy, breeds of each animal, feeding guidelines, reproduction, management and basic disease diagnosis. The basics of FFA will also be introduced in this class. However, students need not be an FFA member to enjoy this class.

HORTICULTURAL PRODUCTION & MANAGEMENT

OPEN TO GRADES: 11, 12

PREREQUISITES: Exploring the Fundamentals of Agriculture OR permission by teacher

LENGTH OF COURSE: 1 year

CREDIT: 1 credit

COURSE DESCRIPTION:

This advanced course offers instruction in both the greenhouse production and landscape areas of horticulture. Units of study include plant identification, greenhouse management, growing greenhouse crops, landscape design, installation, and maintenance, horticulture mechanics, nursery management, and turf production. Agribusiness units will cover operating a horticultural business, pricing work, advertising and sales. 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.

APPLIED SKILLS AG MECHANICS A (AFO 208)

OPEN TO GRADES: 11, 12

PREREQUISITES: Exploring the Fundamentals of agriculture OR permission by teacher

LENGTH OF COURSE: 1 year

CREDIT: 1.0 dual credit (LLCC 3.0 Credits)

COURSE DESCRIPTION:

This course will concentrate on expanding student's knowledge and experiences with agricultural mechanics technologies utilized in the agricultural industry. Units of instruction included are: design, construction, fabrication, maintenance, welding, electricity/electronics, internal combustion engines, hydraulics, and employability skills. Careers of agricultural construction engineer, electrician, plumber, welder, equipment designer, parts manager, safety inspector, welder, and other related occupations will be examined. Improving workplace and computer 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. **The semester includes units in Electricity, Surveying, and Construction.**

SUPERVISED AGRICULTURE EXPERIENCE I

OPEN TO GRADES: 11, 12

PREREQUISITES: Exploring the Fundamentals of Agriculture, Permission of Instructor

LENGTH OF COURSE: 1 year

CREDIT: 1 credit

COURSE DESCRIPTION:

This course is designed to establish knowledge and skills in various agricultural careers. Students will gain credit by establishing a project at their home, at a local business, or at their school usually after normal school hours. Example projects may include, but are not limited to: working at a garden center, raising vegetables/grain/livestock, conducting Agri science experiments in a greenhouse, and training horses at a stable. Students will be required to verify their experiences by keeping written or computerized records including: business, agreements, budgets, inventories, daily activities, hours worked, income and expenses, total earnings, depreciation, and net worth. Instructor supervision will be conducted to the student's home or place of employment. SAE records should be evaluated at least once per month. In addition, SAE lessons are integrated in each agricultural course. SAE participation can lead to full time employment, scholarships, and awards through the FFA.

SUPERVISED AGRICULTURE EXPERIENCE II

OPEN TO GRADES: 12

PREREQUISITES: Exploring the Fundamentals of Agriculture, Permission of Instructor

LENGTH OF COURSE: 1 year

CREDIT: 1 credit

COURSE DESCRIPTION:

This course is designed to improve and expand knowledge and skills in various agricultural careers. Students will gain credit by continuing a project at their home, at a local business, or at their school usually after normal school hours. Students are encouraged to add additional projects, experiences, scope, and growth involving managerial and decision making skills. Students will be required to verify their experiences by keeping written or computerized records including: business agreements, budgets, inventories, daily activities, hours worked, income and expenses, total earnings, depreciation, and net worth. Instructor supervision will be conducted to the student's home or place of employment. SAE records should be evaluated at least once per month. In addition, SAE lessons are integrated into each agricultural course. SAE participation can lead to full time employment, scholarships, and awards through the FFA.

BUILDING TRADES

OPEN TO GRADES: 11, 12

PREREQUISITES: Application, D-I-Y course, and/or Ag. Mech (teacher recommendation)

LENGTH OF COURSE: 1 Year. May be taken 2 years

CREDIT: 3 Credits/Elective

BDM102 Introduction to Construction Occupation (LLCC, 3.0 credit hrs)

BDM106 Basic Carpentry I (LLCC, 3.0 credit hrs)

BDM112 Construction Blueprint Reading (LLCC, 3.0 credit hrs)

COURSE DESCRIPTION:

Building Trades is a 2 year program covering basic and some advanced building construction. There is classroom instruction and lab instruction. Upon completion of the course, the student should be proficient in many of the building construction trades and qualified for an entry level job in the trades.

All students are required to wear safety glasses, boots and proper clothing. Instructor will provide instructions on other needed material (tools, hats, gloves, etc..)

LLCC BDM 102

This course covers the basic safety principles fundamental to construction. Topics include the correct use of hand and power tools, emergency and first aid procedures and avoiding hazardous conditions. Introduction to basic construction math, OSHA regulations and code compliance are also studied.

LLCC BDM 106

This course is the first of two carpentry classes that prepares students to perform basic rough carpentry techniques. Topics include foundation preparation, wall layout/framing and exterior finish. Knowledge and skill are developed in the areas of construction materials, print reading, design and safe operation of power tools.

LLCC BDM 112

This course teaches students to read and interpret construction symbols, blueprints and appropriate building codes. Students are taught rough drawing, sketching and dimensioning techniques. Residential and light commercial construction blueprints are the focus of this course.

D-I-Y I

OPEN TO GRADES: 9 – 12
PREREQUISITES: none
LENGTH OF COURSE: 1 Year
CREDIT: 1.0 Credits/Elective
COURSE DESCRIPTION:

For many in America, the dream is to one day own a place of your own. You, as the owner, will be responsible for maintenance and improvements. This course is designed to give students the opportunity to learn many of the skills necessary to maintain and update a home. Units on plumbing, electrical, drywall, flooring, safety and other that make up the construction industry will all be covered. D-I-Y gives every student in the class exposure to many different exciting care paths.

D-I-Y II

OPEN TO GRADES: 10 - 12
PREREQUISITES: Completion of D-I-Y I
LENGTH OF COURSE: 1 Year
CREDIT: 1.0 Credits/Elective
COURSE DESCRIPTION:

Expansion of what was learned in D-I-Y I : Units on plumbing, electrical, drywall, flooring, safety and others that make up the construction industry will all be covered.

OKAW COURSE LISTING/DESCRIPTIONS FOUND AT : <https://www.okaw.us/>

BUSINESS DEPARTMENT

ACCOUNTING I

OPEN TO GRADES: 10, 11, 12
PREREQUISITES: None
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

Accounting I is designed to give the student a thorough knowledge of basic accounting principles for personal use, entry-level accounting positions, and further study in accounting.

ACCOUNTING II

OPEN TO GRADES: 11, 12
PREREQUISITES: "C" or better in Accounting I
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

Accounting II will briefly review the concepts covered in Accounting I before continuing on with new concepts and techniques that a merchandise business would use in financial record-keeping. Additional ideas will include depreciation of assets, covering the finances associated with business partnerships, and factoring internet sales into a business's revenue stream. Additional programs will be used to create individual accounting programs.

BUSINESS MANAGEMENT

OPEN TO GRADES: 11, 12 (Teacher approval for 10th grade)
PREREQUISITES: "B" or better in Business Technology
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

This full year course introduces students to the world of business management. This course will set a solid foundation for college and/or CEO class. The study skills aspect of the course covers organization, time management, improving reading for comprehension, note taking skills and more. The business section will help students acquire sound values and acceptable attitudes regarding job success while engaging in teamwork, presentations, and current business operations. Other topics will be today's economy, marketing, human resources and other business operations. The management training will engage in effective and creative business plans to steer case scenario businesses towards profitability. Problem solving skills to mitigate business risk with a sound foundation for business endeavors to be

addressed and diagnosed. The course will transition from theoretical frameworks to real world applications of today's business landscape. The knowledge obtained in this class will be practiced and reinforced throughout the course and is transferable to everyday life.

BUSINESS TECHNOLOGY and CONSUMER CONCEPTS

OPEN TO GRADES: 9
PREREQUISITES: None
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required
COURSE DESCRIPTION:

This course meets the graduation requirements for Consumer Economics. Business Concepts and Technology is an intermediate to advanced level course using the Microsoft Office Suite. This class provides skills needed in high school, college, and the work environment. Hands-on experience utilizing formatting skills in word processing, spreadsheet, database, presentation software, e-mail, Internet and integration concepts will be the focus of this course. In addition, students will use Google Workspace to collaborate on projects and Cloud to store information. In this class, students focus on producing professional business documents for publication and learning the basics of coding to enhance planning, organizing, and problem-solving techniques. In addition, students will complete a career unit and study financial literacy including: banking, budgeting, saving, investing, transportation, housing, higher education choices, and the wise use of credit.

CSC 100 UNDERSTANDING TECHNOLOGY TODAY (IT JUMPSTART)

OPEN TO GRADES: 11,12 (must be sixteen years of age)
PREREQUISITE: None
FORMAT: ONLINE - LLCC CANVAS
LENGTH OF COURSE: SEMESTER LONG – FALL OR SPRING
CREDIT: 0.5 Credit/elective
CSC 100 Understanding in America (LLCC 3.0 credit hrs)

ORIENTATION REQUIRED: This orientation meeting will be scheduled AFTER HHS online registration. Students are required to meet standard college entrance requirements and are responsible to cover the cost of each course at LLCC's standard \$/hr cost.

COURSE DESCRIPTION:

This subject covers technology concepts and trends underlying current and future developments in information technology, and fundamental principles for the effective use of computer-based information systems. This course explores the variation and future development of application, system software, hardware, network and security. Special emphasis is placed on social and ethical issues pertaining to the web, e-commerce and distributed computing. Students study system analysis, programming and database creation using simple hands-on exercises along with learning about career opportunities in the fast growing field of technology. R, 11 (2 lecture hours and 2 laboratory hours)

ONLINE HELP DESK CERTIFICATION (IT JUMPSTART)

CSC 100 (Year 1:fall)	CSC 130 (Year 1:spring)
CSC 133 (Year 2:fall)	CSC 132 (Year 2:spring)

CREATING ENTREPRENEURIAL OPPORTUNITIES (CEO)

OPEN TO GRADES: 12
PREREQUISITES: Online application and interview will be required for each interested student.
LENGTH OF COURSE: 1 year
CREDIT: 2.0/Elective
Western Illinois University Program, Dual Credit, (3.0 credit hours)

COURSE DESCRIPTION:

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 student development throughout the course. Students will meet at a variety of county-wide business locations throughout the year and meet from 7:30 to 9:00 a.m..

BASIC NURSE ASSISTANT PROGRAM LLCC NAS 101

OPEN TO GRADES: 11, 12
PREREQUISITES: Application, Lincoln Land Community College Reading Comprehension Exam
LENGTH OF COURSE: 1 Semester
CREDIT: 2 Hours/Elective
LLCC Dual Credit (6.5 credit hours)

COURSE DESCRIPTION:

This CNA program is provided by Hillsboro High School in affiliation with Lincoln Land Community College and approved by the Department of Public Health. This course is specifically designed to train students to be Certified Nurse Assistants. Upon successful completion of the course, the student receives a certificate making him/her eligible to be employed in home health agencies, nursing homes, and hospitals. In order to complete the program, students must pass a competency exam required by state and federal guidelines. The student will be given 6.5 credit hours of Lincoln Land credit for successful completion of this course.

LLCC Course Information: NAS 101 Basic Nurse Assistant (6.5 credit hours)

ENGLISH DEPARTMENT

ENGLISH I

OPEN TO GRADES: 9
PREREQUISITES: English courses should be taken in sequence.
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required
COURSE DESCRIPTION:

Freshman English encompasses reading, writing, listening, speaking, vocabulary, and grammar with various assignments, activities, essays, and assessments to reinforce these components. The curriculum involves short stories, novels, poetry, drama, and mythology, with emphasis on vocabulary development, literary analysis, and reading strategies to improve literacy. A few of the classics include Edgar Allan Poe's *The Cask of Amontillado* and *The Raven*, William Shakespeare's *Romeo & Juliet*, Homer's *Odyssey*, Sir Arthur Conan Doyle's *The Red Headed League*, Daphne du Maurier's *The Birds*, and Harper Lee's *To Kill A Mockingbird*.

ADVANCED ENGLISH I

OPEN TO GRADES: 9
PREREQUISITES: Recommended by 8th grade Language Arts teachers, high standardized test scores
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required
COURSE DESCRIPTION:

Advanced Freshman English encompasses all of the above elements plus additional selections and activities added to offer challenges and a more in depth study of the world around us in connection to not only the English language, but also our heritage. For instance, an additional unit includes renowned author Elie Wiesel's *Night*, and a powerful look at one man's journey and survival of the Holocaust. In addition to added materials and activities, Advanced English I students will be held to higher expectations to foster and support the demands of a collegiate future.

INTERPERSONAL COMMUNICATION

OPEN TO GRADES: 9 - 10
PREREQUISITES: none
LENGTH OF COURSE: 1 semester
CREDIT: 0.5 Credit/required

COURSE DESCRIPTION:

Students will perform a variety of activities in order to enhance their well-being and the way they communicate with the world around them. Topics will include the elements of interpersonal communication, identity and self, individual and intercultural motivations, verbal messages, listening, nonverbal messages and perception and maintaining relationships.

ENGLISH II

OPEN TO GRADES: 10
PREREQUISITES: English I
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required

COURSE DESCRIPTION:

Students will read literature from a variety of sources and write for a variety of purposes and audiences. Journal writing and essays are stressed. Literary terms and analysis of different genres of literature are a focus of this class.

ADVANCED ENGLISH II

OPEN TO GRADES: 10
PREREQUISITES: English I and approval of instructor
LENGTH OF COURSE: 1 YEAR
CREDIT: 1 Credit/Required
COURSE DESCRIPTION:

Students will develop their reading and writing skills through an intense curriculum in which writing assignments, projects and critical thinking activities are emphasized. Students will also regularly participate in oral presentations, outside reading, and group discussions. Students should be prepared to hone their writing skills through composing numerous essays, and one 1500 word research project. Students will be expected to be self-motivated and be responsible for completing independent reading and writing.

ENGLISH III

OPEN TO GRADES: 11
PREREQUISITES: English II
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required
COURSE DESCRIPTION:

English III invites students to read and respond to a diverse body of fiction and nonfiction through novels, short stories, poetry, essays, and non-traditional “texts,” such as podcasts and films. Over the course of the year, students will practice real-world skills through an introduction to rhetorical appeals, writing arguments, and conducting research.

ENGLISH 2250

SLU 1818 PROGRAM (Dual Credit): Conflict, Social Justice and Literature

OPEN TO GRADES: 11
PREREQUISITES: Advance English II or permission of instructor
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective (Weighted Grade Course)
SLU 1818 PROGRAM, Dual Credit (3.0 credit hours)

COURSE DESCRIPTION:

This course introduces literary study within the context and theme of Cultural Conflict and Social Justice. Through the reading of a wide variety of genres - including a podcast, novels, short stories, poetry, and essays - the course engages students in literary ways of knowing. Methods include close reading, comparative textual analysis, and argumentative writing. Students will be expected to take ownership of their learning through implementing close reading practices, such as annotation, and thoughtfully preparing for discussion.

ENGLISH 1500

SLU 1818 Program (Dual Credit): The Process of Composition (3.0 Credit Hours)

OPEN TO GRADES: 12

PREREQUISITES: English 2250

LENGTH OF COURSE: Semester course

CREDIT: 0.5 Credit/Elective (Weighted Grade Course)

SLU 1818 Program, Dual Credit (3.0 credit hours)

COURSE DESCRIPTION:

Develops effective personal and expository prose writing skills, including methods of invention, organization, audience analysis, and style. Focuses on the compositional process. This course involves reading critically along with composing and revising essays which develop narrative, rhetorical analysis, synthesis, and argumentation skills. Students will be expected to engage reflectively with the writing process, both independently and collaboratively.

ENGLISH 1900

SLU 1818 Program (Dual Credit): Adv. Strategies of Rhetoric and Research (3.0 Credit Hours)

OPEN TO GRADES: 12

PREREQUISITES: ENGLISH 1500

LENGTH OF COURSE: Semester course

CREDIT: 0.5 Credit/Elective (Weighted Grade Course)

SLU 1818 Program, Dual Credit (3.0 credit hours)

COURSE DESCRIPTION:

Studies complex structures of language including its logical and persuasive possibilities within the context and theme of social advocacy. Emphasizes analytical reading, critical thinking, and research methodology skills. This course focuses on best practices in research, analyzing compositional choices, writing arguments from multiple perspectives, tailoring rhetoric for diverse audiences, and forming an advocacy-based proposal argument that will be implemented in the real world. Students will be expected to engage reflectively with the writing process, both independently and collaboratively.

ENGLISH IV

OPEN TO GRADES: 12

PREREQUISITES: English III

LENGTH OF COURSE: 1 Year

CREDIT: 1 Credit/Required

COURSE DESCRIPTION:

English 4 is a capstone course for students headed to college, career training, or military service. It focused on reading fiction and nonfiction, language skills, and written communication. Students will write 5 essays over the course of the year.

READER RESPONSE

OPEN TO GRADES: 12
PREREQUISITES: English III
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

Students will read several contemporary novels in order to increase their reading comprehension and fluency, expand vocabulary knowledge and practice critical thinking skills. Students will have the opportunity to respond to the various assigned readings through traditional and non-traditional assessments.

ORAL COMMUNICATIONS

OPEN TO GRADES: 12
PREREQUISITES: English III
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

Students will perform a variety of activities in order to enhance their verbal and nonverbal communication. The following units will be covered: Listening and nonverbal communication, Children's literature, narrative speaking, interviewing, group discussion, persuasive speaking, demonstrative speaking and debate.

HILTOP

OPEN TO GRADES: 10, 11, 12
PREREQUISITES: Application, Permission of the instructor
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit
COURSE DESCRIPTION:

The Hiltop course exposes students to a variety of real-life experiences that will help prepare them for the working world beyond high school. Students are required to establish a partnership with the community as they market our yearbook as an advertising product for local businesses. Students are required to manage money and to work within a strict budget. The production rate for Hillsboro High School's yearbooks is approximately \$24,000.00 per year and continues to grow. Hiltop also requires

students to set short term and long term goals, and to make sure these goals are met within the confines of our three deadlines. Teamwork is essential as these students must communicate and compromise with each other on a daily basis. Students also learn about successful photography, journalism, caption writing, use of color, and use of graphics and design. Yearbook has many different skills to offer students, and it is a fun way to incorporate creativity into one's high school experience.

FAMILY AND CONSUMER SCIENCES

ORIENTATION TO FAMILY & CONSUMER SCIENCES A

OPEN TO GRADES: 9, 10
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester/ Fall
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

This course introduces students to the basic areas of Family & Consumer Sciences programs. Learning experiences assist students in understanding themselves, their roles and related careers in each of the basic areas of Family & Consumer Sciences. Foundational skills built in personal growth, and management and relationship skills..

ORIENTATION TO FAMILY & CONSUMER SCIENCES B

OPEN TO GRADES: 9, 10
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester/ Spring
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

This course introduces students to the basic areas of Family & Consumer Sciences programs. Learning experiences assist students in understanding themselves, their roles and related careers in each of the basic areas of Family & Consumer Sciences. Foundational skills built in health and wellness, food preparation, consumerism, caregiving, and housing and design.

CULINARY ARTS & WELLNESS

OPEN TO GRADES: 11, 12
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

This course promotes knowledge and understanding of basic food principles and applied nutrition and wellness strategies for all people of all ages. The curriculum addresses food service and preparation management using the decision making process; meeting basic needs by applying nutrition concepts; meeting health and safety needs in planning, preparing and serving nutritional meals; maximizing resources when planning, preparing and serving food; promoting hospitality and food etiquette practices; and analyzing individual and family nutritional needs. Career information related to the foods industry is included.

NUTRITIONAL & CULINARY ARTS II

OPEN TO GRADES: 11, 12

PREREQUISITES: **"C" or better in CULINARY ARTS & WELLNESS**

LENGTH OF COURSE: 1 Semester

CREDIT: 0.5 Credit/Elective

COURSE DESCRIPTION:

In Culinary Arts II, students will apply the principles of the hospitality industry, including nutrition, culinary and entrepreneurial opportunities. The course curriculum includes the following topics: food selection, purchase and preparation, conservation of food resources, dietary needs and trends, international cuisine, food safety and sanitation, and career exploration in the food service industry. Earn the Illinois Food Handlers Certificate as part of the class– an industry recognized certification along with the option of the ServSafe Allergen Certification.

CHILD CARE/TEACHING INTERNSHIP

OPEN TO GRADES: 11, 12

PREREQUISITES: Completion of Child Development class highly recommended. Application and/or interview required for enrollment.

LENGTH OF COURSE: 1 Year

CREDIT: 2 Credit/Elective

COURSE DESCRIPTION:

This two-hour course is designed to provide students interested in a career in child and day care operations or in education with information and practical experiences needed for the development of job-related competencies. Students will be provided laboratory experiences either in a school-based or extended campus facility. Students will be expected to develop appropriate skills in program development and in assisting children and/or adults with activities. Classroom study will include child development principles and the skills needed to successfully guide children while keeping them healthy and safe. The program will combine a minimum of 120 classroom hours of instruction with a possible 480 hours of direct, hands-on experience working with children at a daycare facility culminating with a chance to earn the Child Development Associate Credentials. Earn CPR, AED, First Aid (Infant, Child and Adult) Certification, DCFS Mandated Reporter, SIDS, SBS and ECE Level I industry recognized certification. Application and/or interview required for enrollment.

FINE ARTS

ART SKILLS – A/B

OPEN TO GRADES: 9-12

PREREQUISITES: None

LENGTH OF COURSE: 1 Semester/A-Fall, B-Spring

CREDIT: 0.5 Credit/Elective

COURSE DESCRIPTION:

Art Skills is a basic art course acquainting students with the many facets of art. Beginning with the elements of art, students will learn the basics. From this point, work is created in various media: graphite, colored pencils, paint, charcoal, chalk, pen and ink, and watercolor. The fundamentals of drawing and painting will be introduced including still life and figure drawing/painting.

Three-dimensional work will be explored in the mediums of clay, plaster, and/or paper-mâché. A sketchbook with weekly assignments is required. There will also be weekly discussions and writing prompts pertaining to art history. **Students are encouraged to enroll in Art Skills A & B for the entire year. There will be no repetition of projects between the two classes.**

CERAMICS

OPEN TO GRADES: 10-12

PREREQUISITES: Art Skills A / B

LENGTH OF CLASS: 1 Semester

CREDIT: 0.5 Credit/Elective

COURSE DESCRIPTION:

Learn design and skills needed to produce pottery and sculpture using a variety of hand-building techniques. General knowledge about ceramic artists, techniques, art careers, and art criticism will be included. The students will create a sketchbook to use for project sketches and class notes. There will also be weekly discussions and writing prompts pertaining to art history of Ceramics.

ADVANCED CERAMICS

OPEN TO GRADES: 11, 12

PREREQUISITES: Art Skills A / B, Ceramics, and Permission of Instructor

LENGTH OF COURSE: 1 Semester

CREDIT: 0.5 Credit/Elective

COURSE DESCRIPTION:

Students will build on the knowledge and skills they learned in Ceramics. They will elaborate on skills needed to produce pottery and sculpture using a variety of hand-building techniques. General knowledge about ceramic artists, techniques, art careers, and art criticism will be included. The students will create a sketchbook to use for projects sketches and class notes. There will also be weekly discussions and writing prompts pertaining to art history of Ceramics.

MIXED MEDIA ARTS

OPEN TO GRADES: 10, 11, 12
PREREQUISITES: Art Skills A/B
LENGTH OF COURSE: 1 Semester/Fall
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

This course will offer in-depth exploration of techniques and new ways to see, use, and interpret multiple materials. Students will create multi-directional compositions with a variety of materials, paint, images, found objects, and ink painting. Techniques will include collage, monotype printing, drawing, painting, mixing, assemblage, cutting, and pasting, etc. This course is designed to give students a wide variety of art making experiences and allows students to continue to explore various visual art forms and techniques through the elements and principles of art and design. Students will produce original artworks and learn skills and techniques associated with a variety of art media. Students will develop technical skills and personal style. Both traditional and non-traditional approaches are taught. Many projects may include ordinary objects that can be transformed into creative works of art.

CREATIVE DESIGN

OPEN TO GRADES: 10, 11, 12
PREREQUISITES: Art Skills A/B
LENGTH OF COURSE: 1 Semester/Spring
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

This course will explore the various careers in design. Projects will include working with drawing, painting, mixed media, assemblage, clay, and sculpture. A sketchbook with weekly assignments is required. There will also be weekly discussions and writing prompts pertaining to art history.

ADVANCED ART – A/B

OPEN TO GRADES: 11, 12
PREREQUISITES: 2 semesters of Art including a C+ or higher in Art Skills A/B
LENGTH OF COURSE: 1 Semester/A-Fall, B-Spring
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

A career oriented class to develop a portfolio for art school and job applications. Students will develop skills in composition with an advanced approach to working with a variety of Medias. This includes: graphite, colored pencils, acrylic paint, charcoal, chalk, oil pastels, pen and ink, and watercolor. Mixed media drawing and printmaking will also be explored. A sketchbook with weekly assignments is required. There will also be weekly discussions and writing prompts pertaining to art history. There will be no repetition of projects between the two classes.

PHOTOGRAPHY

OPEN TO GRADES: 11, 12

PREREQUISITES: Art Skills A/B & 1 other semester of Art or permission of instructor

LENGTH OF COURSE: 1 Semester

CREDIT: 0.5 Credit/Elective

COURSE DESCRIPTION:

This general course provides an opportunity to explore various aspects of photography. Skills and knowledge will be developed in the following areas of photography: digital camera techniques, photography history, composition, and photo design and production using Photoshop software. Projects will include photographing various subjects: nature, animals, landscape, portrait, story, architecture, action, and more. Students will experience the use of B & W, color print, and digital film for projects. Students are required to have a 6.0 megapixel digital camera and a 512 MB jump drive for the class. There will be weekly discussions and writing prompts pertaining to art history of photography.

ADVANCED PHOTOGRAPHY

OPEN TO GRADES: 11, 12

PREREQUISITES: Photography & permission of instructor

LENGTH OF COURSE: 1 Semester

CREDIT: 0.5 Credit/Elective

COURSE DESCRIPTION:

Students will build on the knowledge and skills they learned in Photography. This advanced course continues to develop the exploration of the various aspects of photography. Skills and knowledge will be developed in the following areas of photography: digital camera techniques, photography history, composition, photo design and production using Photoshop software. Projects will include photographing various subjects: nature, animals, landscape, portrait, story, architecture, action, and more. Students will experience the use of Black & White, color print, and digital film for projects. Students are required to have a 6.0 megapixel digital camera and a 512 MB jump drive for the class. There will be weekly discussions and writing prompts pertaining to art history of photography.

MUSIC IN AMERICA

OPEN TO GRADES: 11,12

PREREQUISITES: NONE

LENGTH OF COURSE: 1 Semester

CREDIT: 0.5 Credit/Elective

MUS 108 Music in America (LLCC 3.0 credit hrs)

COURSE DESCRIPTION:

The course presents major musical achievements and significant works by American composers and musicians, spanning a wide range of styles including but not limited to classical music, country, blues, jazz, soul and rock. Music in America is an overview of how our diverse heritage has shaped our music, and how our unique music reflects our history as well as American culture. The course is available to all students with an interest in American music, and would also be appropriate for pop musicians as well as

classical musicians who wish to expand their knowledge of American musical styles. Concert attendance outside of class time is required. R, W1, 11 (3 lecture hours) IAI: FI 904

CHAMBER SINGERS

OPEN TO GRADES: 9, 10, 11, 12 (Selective)
PREREQUISITES: Prior participation in either junior high or high school choir, audition required
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

The Hillsboro High School Chamber Singers is a highly select performing choir of twenty-four to thirty-two students (depending on full enrollment in the high school choral program). Students are selected through a competitive audition and are chosen for the ensemble based on their audition score. In this class, students are required to participate in numerous performances as outlined by the director. Through performance, students gain experience and appreciation for proper vocal techniques, concert etiquette, and different genres of vocal music. Choir students will attend functions outside of school that provide opportunities to grow as musicians, such as the Millikin University Vocal Festival, and IHSA Solo and Ensemble Contest. As a requirement, students will audition for the ILMEA District and All-State ensembles (unless there is an unavoidable scheduling conflict with either the audition or festival). Students will be required to participate in the annual musical production, whether it be in the cast, on the stage crew, student directing, or other needs as outlined by the director. Class time will consist of vocal warm-ups, sight singing exercises, and rehearsal of music. Chamber Singers students will also study the symbols, terminology and notation of music. Additional classroom assignments will involve journaling and concert critiques. Students will develop an appreciation and understanding of the art. Students will be required to have and keep a pencil for all rehearsals. There will also be a \$20.00 class fee that will apply to the cleaning of and maintenance of performance dresses and tuxedos.

CONCERT CHOIR

OPEN TO GRADES: 9, 10, 11, 12 (Selective)
PREREQUISITES: Audition required
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

The Hillsboro High School Concert Choir is a performance group selected through audition. In this class, students are required to participate in scheduled performances as outlined by the director. The class will be capped at eighty-five students. Through performance, students gain experience and appreciation for proper vocal techniques, concert etiquette, and different genres of vocal music. Choir students will attend functions outside of school that provide opportunities to grow as musicians, such as ILMEA District and All-State choir, the Millikin University Vocal Festival, and IHSA Solo and Ensemble Contest.

Students will be required to participate in the annual musical production, whether it be in the cast, on the stage crew, student directing, or other needs as outlined by the director.

Class time will consist of vocal warm-ups, sight singing exercises, and rehearsal of music. Concert Choir students will also study the symbols, terminology and notation of music. Additional classroom

assignments will involve journaling and concert critiques. Students will develop an appreciation and understanding of the art.

BAND

OPEN TO GRADES: 9, 10, 11, 12

PREREQUISITES: Elementary/junior high instrumental music instruction OR consent of instructor.

LENGTH OF COURSE: 1 Year

CREDIT: 1 Credit/Elective

COURSE DESCRIPTION:

The first quarter consists of marching band activities. During this time, techniques in music execution and marching will be covered in both written theory and performance (both football halftime show and parade). The second and third quarters consist of pep band and concert band literature study and performance to develop musical technique and an appreciation for various types of instrumental band music. A Christmas concert and basketball pep band performances will be presented. Fourth quarter consists of concert music, IHSA solo, ensemble and organizational contests, spring concert and graduation performance. Sectionals will be held as scheduled. Attendance at band performances is required. Some weekend and evening performances are necessary.

PERCUSSION ENSEMBLE

OPEN TO GRADES: 9, 10, 11, 12

PREREQUISITES: Elementary/junior high instrumental music instruction OR consent of instructor.

LENGTH OF COURSE: 1 Year

CREDIT: 1 Credit/Elective

COURSE DESCRIPTION:

Students in Percussion Ensemble will learn:

- proper technique for playing both battery and mallet percussion instruments.
- music theory as it relates to the performance of percussion instruments.
- Marching band music and drill and perform as part of the Hillsboro H.S. Marching Band
- Percussion ensemble literature and perform as part of the Hillsboro H.S. Percussion Ensemble at the Winter Concert, Solo and Ensemble, and the Spring Concert

Select Students in Percussion Ensemble will prepare concert band literature and perform as part of the Hillsboro H.S. Concert Band at the Winter Concert, ILMEA Large Group Festival, and the Spring Concert.

FOREIGN LANGUAGE

SPANISH I

OPEN TO GRADES: 9, 10, 11

PREREQUISITES: Teacher recommendation

LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

Verbal and written skills are both introduced with emphasis on pronunciation and grammar during this course. Spanish I students learn every day, meaningful expressions, useful vocabulary, and enough grammar to be able to provide general information and participate in short conversations.

SPANISH II

OPEN TO GRADES: 10, 11, 12
PREREQUISITES: Spanish I and teacher recommendation
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

Spanish II students continue to use and develop verbal and written skills. More verb tenses are presented throughout the year with increased vocabulary study. Spoken proficiency is stressed with students presenting conversations for the class.

SPANISH PLUS

OPEN TO GRADES: 11, 12
PREREQUISITES: Spanish II and teacher recommendation
LENGTH OF COURSE: 1 Year or 2 Years
CREDIT: 1 Credit/Elective per course
COURSE DESCRIPTION:

Verbal and written skills are further developed with continued emphasis on grammar skills and increased vocabulary. The student will read and translate informational texts and fictional works in Spanish. The culture and civilization of Spanish-speaking countries is explored. Conversation is an important element of the course. The class is conducted in Spanish with students expected to participate in the language.

MATHEMATICS DEPARTMENT

ALGEBRA I

OPEN TO GRADES: 9, 10
PREREQUISITES: None
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required
COURSE DESCRIPTION:

This is a traditional Algebra I course that covers basic operations with algebraic equations and polynomials, factoring polynomials, simplifying algebraic fractions, solving ratios, proportions, graphing inequalities and solving linear systems.

GEOMETRY

OPEN TO GRADES: 9,10,11
PREREQUISITES: Algebra I
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required
COURSE DESCRIPTION:

Geometry is the second year course in math for high school students. This course develops a structured mathematical system employing both deductive and inductive reasoning. It includes plane, spatial, coordinate, and transformational geometry. Algebraic methods are used to solve problems involving geometric principles. Geometry is meant to lead students to an understanding that reasoning and proof are fundamental aspects of mathematics and something that sets it apart from the other sciences.

ALGEBRA II

OPEN TO GRADES: 9,10,11
PREREQUISITES: Algebra I, Geometry
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required
COURSE DESCRIPTION:

This course is designed to prepare students for careers which need a more thorough understanding of mathematics and to serve as a prerequisite for more advanced math and science classes. This course will include these topics: basic concepts of Algebra, inequalities, linear equations and functions, products and factors of polynomials, rational expressions, irrational and complex numbers, quadratic equations and functions, variation and polynomial equations, analytic geometry, exponential and logarithmic functions, sequences and series, triangular trigonometry, statistics and probability, matrices and determinants.

TRANSITIONAL MATH

OPEN TO GRADES: 12
PREREQUISITES: none
LENGTH OF COURSE: 1 year
CREDIT: 1 Credit

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.

PRECALCULUS

OPEN TO GRADES: 11, 12
PREREQUISITES: Achieving a "C" or better in Algebra II is advised
LENGTH OF COURSE: 1 year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

Pre-Calculus is designed to prepare juniors for Calculus and to serve as an exit level advanced math course for those students who need a solid math basis for college courses in engineering, science, pre-med, nursing and business. Topics covered include: Coordinate geometry, advanced graphing, polynomials, inequalities and functions; review and extension of trigonometry; exponents and logarithms; conic sections; polar coordinates and complex numbers; vectors and determinants; finite and infinite sequences and series; probability and statistics.

AP CALCULUS

OPEN TO GRADES: 12
PREREQUISITES: Achieving a "C" or better in Precalculus
LENGTH OF COURSE: 1 year
CREDIT: 1 Credit/Elective (Weighted class)
COURSE DESCRIPTION:

Calculus is a capstone course that rests upon classes that began in elementary school through high school pre-calculus. This course provides the mathematical background for those students pursuing careers in science, engineering, business and medicine. Topics include:

Functions, limits and continuity; derivatives, relative maxima and minima, Definite and indefinite integrals, Improper integrals; areas, volumes surface areas; miscellaneous applications of derivatives and integrals in science, business and engineering.

SAFETY, HEALTH AND PHYSICAL EDUCATION

CLASSROOM DRIVER TRAINING

OPEN TO GRADES: ALL
PREREQUISITES: Placement based on age. Must have passed 8 academic credits in the previous 2 semesters. Assignments are made on the basis of age and grade eligibility.
LENGTH OF COURSE: 9 weeks
CREDIT: None
COURSE DESCRIPTION:

Classroom Driver Training is the first course students will complete in driver's training. They will learn the fundamentals of driving, a basic understanding of the mechanics of the automobile and the development of defensive driving attitudes. Classroom Driver Training consists of at least thirty hours of classroom training that is required by Illinois law. In order to meet the time requirements students may **not** miss more than 5 days of class for **any** reason. The students will also receive their instruction permits during CDT. Receiving their instruction permit will involve passing the written state driving test and passing a vision screening. There is a \$150 fee for this class that covers the cost of classroom and practice driver's training. The fee covers the cost of leasing and maintaining a vehicle for driver education. In addition you must pay a \$20 fee to the Illinois Secretary of State and provide the proper identification.

PRACTICE DRIVER TRAINING

OPEN TO GRADES: 10, 11, 12
PREREQUISITES: Successful completion of CDT. Must have passed 8 academic credits in the previous 2 semesters. Assignments are made on the basis of age and grade eligibility.
LENGTH OF COURSE: 9 weeks
CREDIT: None
COURSE DESCRIPTION:

PDT consists of at least six hours of driving practice and twelve hours of observation time. Students are not given a set number of days that they meet Illinois state law. Students will be graded on the final road test administered at the end of the nine weeks. The road test is the final and is pass/fail. We are involved with the Cooperative Driver Testing Program which is a state program. It rewards students who have earned an A or B in both CDT and PDT with not having to duplicate the road test at the driver services facility. Before obtaining their license a student must have passed the driver training courses, be 16 years of age, have driven 50 hours with an eligible driver and had their instructional permit for nine months.

HEALTH

OPEN TO GRADES: 9, 10
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester

CREDIT: 0.5 Credit/Required

COURSE DESCRIPTION:

Health is a comprehensive, modern approach to health education. It will help the student to understand health concepts through direct and simple explanations. This approach helps students apply health knowledge in making intelligent decisions about their health and encourages them to achieve and maintain a high level of physical, mental, and social well-being.

PHYSICAL EDUCATION

OPEN TO GRADES: 9, 10, 11, 12

PREREQUISITES: None

LENGTH OF COURSE: Every semester of HHS enrollment

CREDIT: 1 Credit/year Required

COURSE DESCRIPTION:

This course has several goals: To familiarize students with a variety of sports activities; to develop basic skills needed to participate in these sports activities; to encourage positive attitudes and a sense of responsibility towards peers and self; to allow further skill development and concentrated activity in sports areas used for lifetime recreation; and to emphasize fitness for a positive health condition. Written exams will follow each activity.

WEIGHT TRAINING

OPEN TO GRADES: 9,10, 11, 12

PREREQUISITES: None

LENGTH OF COURSE: 1 Semester

CREDIT: 0.5 Credit/Elective (May substitute for physical education credit)

COURSE DESCRIPTION:

Weight Lifting is taught for those interested in physical conditioning. It is conducted in the weight room and enrollment is limited.

"O" HOUR WEIGHT AND FITNESS (@ HHS)

OPEN TO GRADES: 10*, 11, 12 (* 10th grade students are based on admin approval)

PREREQUISITES: "C" or better in any P.E. courses the previous semester and
Accumulated fewer than 7 tardies/lates to school the previous semester

LENGTH OF COURSE: 1 Semester

CREDIT: 0.5 Credit/Elective (May substitute for physical education credit)

COURSE DESCRIPTION:

Weight Lifting is taught for those interested in physical conditioning. It is conducted in the weight room during 0 hour and enrollment is limited. Zero Hour students may only accumulate fewer than 7 unexcused absences while enrolled to be eligible for the next semester.

"0" HOUR FUSION FITNESS

OPEN TO GRADES: 10*, 11, 12 (* 10th grade students are based on admin approval)
PREREQUISITES: 1) Students must be 16, able to provide their own transportation, and will pay a \$50.00 fee to participate unless they hold a Fusion membership.
2) Students who enroll in 0 Hour at Fusion must pay the full registration fee despite being P.E. exempt for part or all of the semester. Students who do not wish to incur this fee, should enroll in 0 Hour Weight and Fitness at HHS.
3) "C" or better in any P.E. courses the previous semester.
4) Accumulated fewer than 7 tardies/lates to school the previous semester.
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective (May substitute for physical education credit)
COURSE DESCRIPTION:

This class meets at Fusion Fitness Center 5 days a week at 7:00 am. There is limited enrollment. The goal of the class is for students to appreciate the importance of setting personal fitness goals and maintaining a lifestyle that includes a quality fitness routine. Students are expected to use all areas of Fusion and will be divided into groups to meet in specific fitness areas daily. Students are expected to work out for a minimum of 30 minutes daily. The students will do a fitness assessment periodically. Students are graded on attendance, attitude and level of participation. There is a fitness related final exam. Zero Hour students may only accumulate fewer than 7 unexcused absences while enrolled to be eligible for the next semester.

SCIENCE DEPARTMENT

BIOLOGY

OPEN TO GRADES: 9
PREREQUISITES: none
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required
COURSE DESCRIPTION:

This is an introductory life sciences class. This course will cover basic biological concepts and information. Some lab activities are offered and students are required to wear safety glasses.

HONORS BIOLOGY

OPEN TO GRADES: 9
PREREQUISITES: 8th grade teacher recommendation

LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required

COURSE DESCRIPTION:

This class will cover not only basic biological concepts and information but will include many laboratory situations and scientific reasoning on various topics. This course is designed for those students who are college bound or want to pursue more advanced science classes in their junior or senior year.

WILDLIFE MANAGEMENT AND CONSERVATION

OPEN TO GRADES: 9 and 10
PREREQUISITES: none
LENGTH OF COURSE: 1 Year (1st and/or 2nd semester)
CREDIT: 1 Credit/Elective

COURSE DESCRIPTION:

This course will discuss wildlife management and conservation topics, skills and careers. Students will explore wildlife management and conservation, forestry management and conservation, fisheries management and conservation, hunting and fishing as a management tool and many other topics. Students will also explore careers in this field such as, conservation officer, park ranger, wildlife biologist, fisheries biologist, working for the corps of engineers, watershed manager, hunting guide, etc. Students will also have some hands-on experiences with food plots, trail cameras, wildlife sampling, etc. Possible field trips may include the local lakes, Bremer sanctuary, local creeks, local timber, etc.

PHYSICAL SCIENCE

OPEN TO GRADES: 10
PREREQUISITES: Biology
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required

COURSE DESCRIPTION:

Fundamental science course that explores the concepts found in chemistry, physics, earth and space sciences. Emphasis will be placed on the traditional application of physical science as well as simple experimental student conclusions.

HONORS PHYSICAL SCIENCE

OPEN TO GRADES: 10
PREREQUISITES: Honors Biology with a "C" or better and Geometry (or taking concurrently) with "C" or better
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Required

COURSE DESCRIPTION:

This class will cover not only basic chemistry, physics, Earth, and space concepts and information but will include many laboratory situations and scientific reasoning on various topics. This course is designed for those students who are college bound or want to pursue more advanced science courses in their junior or senior year.

ADVANCE BIOLOGY

BIOL 1240 PRINCIPLES OF BIOLOGY 1, BIOLOGY 1245 PRINCIPLES OF BIOLOGY 1 LAB

OPEN TO GRADES: 11, 12
PREREQUISITES: Concurrent enrollment in chemistry or have completed chemistry (HHS prerequisite) A minimum GPA of 3.0 on a 4.0 scale and parent permission (SLU prerequisite)
LENGTH OF COURSE: 1 year
CREDIT: 1.0 Credit/Elective (Weighted Class)
BIOL 1240 Principles of Biology 1 (SLU 3.0 credit hrs)
BIOL 1245 Principles of Biology 1 Laboratory (SLU 1.0 credit hrs)

COURSE DESCRIPTION:

BIOL 1240

Principles of Biology 1 is the first semester of the two-semester Principles of Biology sequence. BIOL 1240 is a college level biology class in which students learn about the chemical and molecular basis of living organisms, cell structure and function, gene structure, expression and heredity, animal anatomy and physiology, and animal development. In addition to learning concepts in biology, students practice critical thinking and problem-solving. Requires BIOL 1245 to be taken simultaneously.

BIOL 1245

Principles of Biology I Laboratory is the LAB component of BIOL 1240. This section covers experimental approaches used in molecular and cellular biology, genetics, and animal physiology. Students will learn to use scientific instruments and techniques implemented in these fields. Students will propose and test hypotheses, collect and analyze data, represent data visually, and practice written and oral scientific communication skills. Requires BIOL 1240 to be taken simultaneously.

CHEMISTRY

OPEN TO GRADES: 11, 12
PREREQUISITES: Algebra I and have had or been enrolled in Algebra II.
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

This class helps students develop a better understanding of their physical world and prepares them for future training in the pursuit of technical and health careers. Topics covered include the following: atomic theory-classical and quantum, periodic table, bonding, gas laws, energy, reaction rate and equilibrium, acids and bases, electrochemistry, nuclear chemistry and introductory organic chemistry. This class includes lecture, demonstration, laboratory and problem solving activities.

ANATOMY & PHYSIOLOGY

OPEN TO GRADES: 10, 11, 12
PREREQUISITES: Student needs a "B" average in Biology
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit /Elective

COURSE DESCRIPTION:

This class allows students to develop a better understanding of the body and how it works. The class also helps prepare students for future training in technical and health careers. Lectures, discussions and laboratory exercises in this class concentrate on the major anatomical structures, basic physiological functions and integrations of the following systems: integumentary (skin), skeletal, muscle, nervous, endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary and reproductive. Preserved adult cats are used in the laboratory to illustrate comparisons with human morphology. Other specimens include sheep brains, sheep eyes, and pig hearts. Anatomical models are also used to further demonstrate body structures.

FORENSIC SCIENCE

OPEN TO GRADES: 11, 12
PREREQUISITES: C average in Biology
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective

COURSE DESCRIPTION:

This course is intended as a hands-on introduction to forensic science. Students will be introduced to methods of collecting evidence at crime scenes, as well as, laboratory processing of the evidence. Students will be required to properly collect, photograph and handle evidence at a crime scene. A background in both biological and physical sciences is necessary to facilitate the learning in this course due to the variety of evidence that can be collected in an investigation.

FORENSIC SCIENCE II

OPEN TO GRADES: 11, 12
PREREQUISITES: C average in Biology
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective

COURSE DESCRIPTION:

This course is intended as a hands-on introduction to forensic science. Students will be introduced to methods of collecting evidence at crime scenes, as well as, laboratory processing of the evidence. Students will be required to properly collect, photograph and handle evidence at a crime scene. Topics covered within this course are blood and blood spatter, toxicology, mechanism of death and autopsy, anthropology, casts and impressions, tool marks, ballistics. Student background in both biological and physical sciences is necessary to facilitate the learning in this course due to the variety of evidence that can be collected in an investigation.

Students do not need to complete Forensics 1 to enroll in forensics 2.

GENETICS

OPEN TO GRADES: 10, 11, 12
PREREQUISITES: "C" average in Biology
LENGTH OF COURSE: 1 Semester/Fall
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

This course studies the structure of genetic material, DNA replication, the cell cycle and mitosis, transcription, translation, meiosis, Medelian genetics, and extensions of Medelian genetics. Students investigate inheritance patterns through experimentation with a laboratory specimen (the fruit fly).

MICROBIOLOGY

OPEN TO GRADES: 10, 11, 12
PREREQUISITES: "C" average in Biology
LENGTH OF COURSE: 1 Semester/Spring
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

This course is an introduction to microorganisms: bacteria, fungi, protozoa, algae and viruses. Emphasis is placed on the role of microbes in health and disease. Topics covered include cell structure, culture techniques, genetics, immunology and genetic engineering. This class is recommended for students that want to pursue biology or health careers.

ADVANCED PLACEMENT CHEMISTRY

OPEN TO GRADES: 12
PREREQUISITES: Chemistry I with a "B" or better average. Permission of instructor.
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective (Weighted Class)
COURSE DESCRIPTION:

Advanced Chemistry involves a review of extension of concepts introduced in Chemistry. More in-depth study of important concepts are supported by extensive lab activities. Since the goal of the class is to prepare the students for the AP Chemistry exam in May, the pace, content, and rigor of the class is similar to that of college level general chemistry. All students in the laboratory are required to wear safety glasses.

PHYSICS

OPEN TO GRADES: 11, 12
PREREQUISITES: Pre-Calculus or concurrent enrollment in Pre-Calculus
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

This class will approach physics with an emphasis on concepts supported by adequate mathematics. Numerous lab activities will expand upon the ideas presented in the text and lecture. Technology will be an integral part of all lab sessions. Upon completion of the class, students will be able to appreciate physics that surrounds them. They should also be prepared to manage the rigor of introductory college physics. All students will be required to wear safety glasses during labs.

SOCIAL SCIENCE DEPARTMENT

WORLD HISTORY UP TO 1600'S

OPEN TO GRADES: 9, 10
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

Students will study ancient civilizations such as Greece and Rome to understand their contributions to world history. The course will then cover the Middle Ages, focusing on feudalism and medieval society across various regions. The semester will conclude with an examination of the global impacts of the Renaissance and Reformation.

WORLD HISTORY FROM 1600'S

OPEN TO GRADES: 9, 10
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

Students will study the absolute monarchies of around the world through the 1800s. Students will examine how the Enlightenment and revolution transformed societies globally from 1500 - 1900. The course will also explore how nationalism contributed to the major conflicts of the 20th century.

AMERICAN HISTORY

OPEN TO GRADES: 11
PREREQUISITES: Junior standing
LENGTH OF COURSE: 1 Year
CREDIT: 1 Credit/Elective
COURSE DESCRIPTION:

American history is studied from the Civil War to the present day. American documents and Supreme Court cases are chronologically integrated into the course. Class discussion, current events, and all basic social studies skills, including vocabulary and writing are an integral part of this course.

SOCIOLOGY

OPEN TO GRADES: 11, 12
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

The Sociology course is designed to help students understand and explore their world through a sociology perspective. Students will examine how people and groups interact. The course will also reinforce the acquisition and application of various social studies skills as well as general reading and writing skills.

PSYCHOLOGY

OPEN TO GRADES: 11, 12
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester
CREDIT: .5 dual credit (LLCC 3.0 Credits)/Elective
COURSE DESCRIPTION:

The course is designed for students who are interested in understanding human behavior and mental processes. This course is a survey of the various factors influencing behavior including biological foundations of behavior, perception, learning and memory, motivation and emotion and personality development, assessment and remediation.

AMERICAN GOVERNMENT

OPEN TO GRADES: 12
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Required
COURSE DESCRIPTION:

Topics include foundations of the U.S. government, Congress and the lawmaking process, the Presidency, the federal courts and the judicial process, and the citizenship rights and responsibilities. The Illinois constitution is studied as a separate unit. A community service requirement is a part of the course grade.

CURRENT EVENTS

OPEN TO GRADES: 11,12
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Elective
COURSE DESCRIPTION:

Analysis of current events and trends addressing political, social and economic systems in the US and abroad.

CRIMINAL JUSTICE

OPEN TO GRADES: 11, 12
PREREQUISITES: None
LENGTH OF COURSE: 1 Semester
CREDIT: 0.5 Credit/Required
COURSE DESCRIPTION:

The criminal justice course introduces students to the foundations, policies, and processes of today's criminal justice system. Students will understand and apply the principles and procedures essential to the overall U.S. criminal justice system, including the role of civics in shaping laws and policies. Course topics will include the nature of crime, law, and criminal justice; arrest-to-sentencing sequences; laboratory, forensic, and trial procedure; probation and parole; the structure, history, and philosophy of the federal, state, county, and municipal court systems; judicial appointment processes; state and federal correctional facilities; system interrelationships with law enforcement agencies; and challenges in criminal justice. The knowledge obtained in this class will be transferable to everyday life and beneficial to those planning a future in law enforcement, corrections, or legal careers.