All Courses Offered at a High School and Taught by Qualified High School Teacher 2023-2024

AGA-114 Principles of Agronomy (3 s.h.)
A foundation course in Agronomy, this course addresses areas including plant anatomy, plant classification and ID, crop physiology, climate, weeds, insects, and crop diseases. Students will take the Iowa Private Pesticide exam as a requirement for this course. (38-15-0-0) *Equivalent to 90-160, AGAS-701*

AGA-154 Fundamentals of Soil Science (3 s.h.)
Introduction to the physical, chemical, and biological properties of soils with an emphasis on the functions of the soil as a medium to support plant life. A review of the sources and functions of major and minor plant elements, fertilizers and their properties, soil acidity, liming materials, and soil conservation. (30-30) Equivalent to 90-186, AGAS-703

AGB-133 Introduction to Ag Business (3 s.h.)
This course is designed for students seeking an Associate of Applied Science Degree in Agriculture. Basic economic concepts, principles, and practice reflected in agriculture will be outlined. Students will also reflect on the major components of an agricultural business organization, and the economic fundamentals involved in organizing, operating, and managing an agricultural business. *(45-0-0-0) Equivalent to 90-170, AGBS-701*

AGS-109 Animal Science I (3 s.h.)
This course is designed to provide students with a general overview of the livestock industry. It identifies the ways in which domestic animals serve the basic needs of humans for food, fiber, shelter, protection, fuel and emotional well-being. Students will develop an understanding of and be able to apply the basic principles of animal selection, breeding, genetics, feeding, health, and husbandry practices. As a student, you will become familiar with the economic and social issues that confront the livestock industry. (45-0) *Equivalent to 70-112, AGSS-701.*

AUT-113 Transportation Fundamentals (3 s.h.)
This course will require many of the basic elements required to be successful in transportation courses. The concepts covered include basic electronics and an introduction to basic shop equipment. Emphasis will be placed on problem solving, proper use and application of equipment, study of electrical and mechanical diagrams, and ability to identify equipment needed in repair situations. Coursework will include many hands-on exercises with industrial grade equipment. (30-30-0-0)

BCA-215 Computer Business Applications (3 s.h.)
Emphasis on business applications of computer software. Students complete business problems using word processing, electronic spreadsheet, and database management software. Students are also exposed to Windows operating systems, presentation software, and the internet.

BIO-102 Introductory Biology (3 s.h.)
Study of organismic biology including organization, metabolism, and reproduction of living systems. Includes evolutionary patterns, inheritance, ecosystems, and structure-function relationships among organisms. (45-0) *Equivalent to BIOL-101, 70-101.*

BIO-103 Introductory Biology Lab (1 s.h.)
Corequisite: Credit for or current enrollment in BIO-102, Introductory Biology. This is a lab component intended to supplement Introductory Biology. (0-30) *Equivalent to BIOL-102, 70-102.*

BUS-102 Intro to Business (3 s.h.)
An overview of the phases and functions of the business enterprise. Units of instruction include the organization, financing, production, and contemporary issues in business. The course provides an awareness and understanding of the complexities of the business world. (45-0)

BUS-130 Introduction to Entrepreneurship (3 s.h.)
This course introduces the concept of Entrepreneurship beginning with identifying characteristics of the Entrepreneur, evaluating opportunities, feasibility, financing, and planning for success. Students will also understand the need for a contingency plan as well as an exit strategy. (45-0)

BUS-152 Creating a Company (3 s.h.)
You will learn about entrepreneurship by being one. This course will give participants the opportunity to experience the activities, emotions and tensions that are part of founding and/or joining a start-up company. While the course materials will provide initial guidance, your success will be determined by your own initiative, perseverance, imagination and energy. This is neither a "game" nor a "simulation". Students are required to identify real business customers and clients and to take steps to deliver real services or products. This is a real-world experience, supplemented by classroom activities and sharing of lessons learned. (45-0-0-0)

BUS-161 Human Relations (3 s.h.)
Human Relations is a course designed to improve the student's ability to function in the workplace. This class will work on increasing the student's self-awareness and improving their ability to get along with customers, coworkers, and supervisors
Equivalent to 15-241, BUSN-105

CAD-216 Architectural CADD (2 s.h.)
Students will be instructed in residential architecture drafting techniques required to design and draft floor plans, exterior and interior details, and structural representations. The course will use architectural CAD software to develop a full set of residential house plans. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

CON-110 Construction Drawing (1 s.h.)
Students will learn about the fundamentals of drawing using manual and computer-aided drafting skills. Architectural Drawing is designed to give students the skills necessary to produce a set of working drawings. Students will learn to draw basic plans, sections, elevations, details, and schedules. (15-0-0-0) *Equivalent to 91-173, BUIL-705*

CON-112 Blueprint Reading & Estimating (3 s.h.)
Residential and commercial print reading and materials estimating covers understanding drawings, the language of construction. Students learn how to gather and use information from prints and drawings to estimate quantities of materials and perform construction work processes. (45-0-0-0) *Equivalent to 91-198, BUIL-720*

CON-360 Construction Math & Measurement (3 s.h.)
This course provides a framework for students to learn and develop essential math skills, including measuring, conversions, and geometry, needed in the construction industry. At the conclusion of the course, students can earn a third-party credential in tapes and rulers.

CON-521 Carpentry Fundamentals I (2 s.h.)
This course introduces the fundamental skills necessary in the construction industry. Topics include construction safety, hand and power tools, construction math, construction drawings, materials handling, job communication, and skill development to gain employment.

CON-523 Carpentry Fundamentals II (6 s.h.)
Prerequisite: CON-521. This course will provide students with the opportunity to utilize the knowledge gained in previous construction courses with hands-on applications to construction projects. This course will reinforce construction competencies in applied mathematics, site layout, blueprint reading, framing, exterior finishing, interior finishing, sustainable design, and building science.

CON-255 Carpentry I (4 s.h.)
Prerequisites: CON-121 Carpentry Fundamentals I and CON-123 Carpentry Fundamentals II
General skills instruction covers safety, hand tools, power tools, print reading, builder's level/transit/laser, scaffolding, rigging, arc welding, cutting and burning. Residential skills instruction covers sitework, building layout, formwork, floor and still framing, wall and ceiling framing, roof framing, stair construction, exterior walls, soffits and cornice construction, roof coverings, window and door installation, cabinet fabrication, and running trims and hardware installations. (24-75-0-0)

CON-256 Carpentry II (4 s.h.)
Prerequisite: CON-255 Carpentry I
General skills instruction covers safety, hand tools, power tools, print reading, builders' level/transit/lasers, scaffolding, rigging, arc welding, cutting, and burning. Commercial skills instruction covers sitework, building layout, footing, wall, stair, column, beam and deck form constructions, wood and steel stud framing, exterior walls and canopy constructions, cabinet fabrication, wood and steel jamb, window, door, millwork and hardware installations, and office partition and acoustical ceiling installations. (24-75-0-0)

ELT-745 Maintenance Shop Operations (3 s.h.)
The student is introduced to shop equipment generally found in the industrial maintenance environment. The student uses safe setup and produces parts with metal saws, drills, grinders, basic welding and cutting, thread repair, anchors and fasteners. The student use of mechanical prints to identify parts in assembly and repair situations is practiced, along with the use of catalogs to find and order repair parts, study of bearings and seals, applications, and failure analysis. (15-61) *Equivalent to 96-156, EMST-805.*

ENG-105 Composition I (3 s.h.)
Improvement of skills in reading, writing, and listening with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing to receive a grade of C or higher. (45-0) *Equivalent to ENGL-104, ENGL-101, 30-101, ENG-102.*

ENG-106 Composition II (3 s.h.)
Prerequisite: ENG-105, Composition I, or ENG-102, Composition & Speech I. Students must have earned a C or higher grade in Composition I or Composition & Speech I before enrolling in Composition II.
A continuation of ENG-105 Composition I, with an emphasis on argumentative and persuasive writing, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's
Workbench STEPS, and sentence structuring videos. (45-0) *Equivalent to ENGL-102, ENGL-105, 30-102, ENG-103.*

ENG-701 Communications I (3 s.h.)
Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0-0-0)
Equivalent to 95-130, ENGL-701

ENG-702 Communications II (3 s.h.)
Prerequisite: ENG-701 Communications I with a C or higher.
Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening and speaking to help meet communication needs in college and for success and advancement in a career. A prerequisite of a C or higher earned in Communications I is necessary to participate in this course. (45-0) Equivalent to 95-131, ENGL-702

HIS-151 U.S. History to 1877 (3 s.h.)
A survey course covering the social, political, and economic history of American civilization from the Age of Discovery through Reconstruction. (45-0-0-0) *Equivalent to 80-140, HIST-101*

HIS-152 U.S. History from 1877 (3 s.h.)
A survey course covering the social, political, and economic history of the United States since 1877. (45-0-0-0) *Equivalent to 80-141, HIST-10*

HSC-120 Medical Terminology I (3 s.h.)
This course will provide the student with an introduction of basic medical terminology utilizing a programmed, word-building system to learn word parts to construct and analyze new terms. Emphasis is placed on spelling, definition, usage, and pronunciation. (45-0-0-0) *Equivalent to 15-251, HEAL-110*

HSC-121 Medical Terminology II (3 s.h.)
Prerequisite: HSC-120 Medical Terminology I is highly desirable.
This course offers a brief review of basic medical terminology, followed by a systems approach to learning terms associated with anatomical, physiological, and pathological aspects of the body. (45-0-0-0) *Equivalent to 15-252, HEAL-111*

MAT-110 Math for Liberal Arts (3 s.h.)
Prerequisite: MAT-089, Survey of Math, with a grade of C or higher; COMPASS Algebra score of at least 56 OR ACT Math score of at least 21.
Math for Liberal Arts provides a survey of mathematics topics that includes sets, logic, statistics, number theory, geometry, critical thinking skills, the metric system, and consumer math. This course will fulfill 3 hours of Natural Science requirement for the A.A. Degree. (45-0) *Equivalent to MATH-101, 40-121.*

MAT-121 College Algebra (4 s.h.)
Prerequisite: MAT-102, Intermediate Algebra with a C or better, OR Math ACT score of at least 21, or Compass Algebra score of 76 or better. This course is intended for students majoring in business, social science, biological sciences, liberal arts, and those mathematics students with insufficient background to begin the study of calculus. The course is a study of various classes of functions, their graphs, and applications. These include linear, polynomial, rational, root, inverse, exponential and logarithmic functions. Also included are systems of equations and inequalities, matrices, sequences and series, and the Binomial Theorem. (60-0) *Equivalent to MATH-121.*

MAT-134 Trig and Analytic Geometry (3 s.h.)
Prerequisite: MAT-121 College Algebra with a grade of C or higher, or ALEKS score of at least 50. This course is a preparation course intended for students majoring in engineering, mathematics, physics, chemistry or certain vocational fields. The course is a study of both trigonometric and conic functions and equations. Both rectangular and polar coordinate systems are studied. (45-0)

MAT-156 Introduction to Statistics
Prerequisite: MAT-092 Intermediate Algebra, with a grade of C or higher; or a COMPASS Algebra score of at least 76; or an ACT Math score of at least 21. This course is intended to introduce students to basic statistical concepts. It covers descriptive and inferential statistical methods, probability, hypothesis testing on the mean and proportion, and linear regression. Students are also introduced to technology as it applies to introductory statistical methods. A graphing calculator is required.

MAT-801 Applied Math A (1 s.h.)
Prerequisite: COMPASS Pre-Algebra score of at least 49; or ACT math score of at least 16; or MAT-063, Pre-Algebra, with a grade of C or higher. This course covers essential topics in algebra, including ratio and proportion, as well as unit conversions, and order of operations. (15-0-0-0)

MAT-802 Applied Math B (1 s.h.)
Prerequisite: COMPASS Pre-Algebra score of at least 49; or ACT math score of at least 16; or MAT-063, Pre-Algebra, with a grade of C or higher. This course covers essential topics in algebra, including solving equations and word problems, and basic statistics. (15-0-0-0)

MAT-803 Applied Math C (1 s.h.)
Prerequisite: MAT-801 Applied Math A with a grade of C or higher and MAT-802 Applied Math B with a grade of C or higher, or by permission of the instructor. This course covers essential topics in algebra, including solving equations and word problems, and basic statistics. (15-0-0-0)

MAT-804 Applied Math D (1 s.h.)
Prerequisite: MAT-801 Applied Math A with a grade of C or higher and MAT-802 Applied Math B with a grade of C or higher, or by permission of the instructor. This course covers essential topics in trigonometry. (15-0-0-0)

PSY-111 Introduction to Psychology (3 s.h.)
An introduction to the scientific study of behavior; a brief history of psychology as a science, and topics fundamental to human behavior including developmental issues, sensory abilities, cognitive performance, social and emotional factors in behavior, and abnormal behavior and therapies. (45-0) *Equivalent to 80-101, PSYC-101*

PSY-121 Developmental Psychology (3 s.h.)
A topical approach to studying the physical, cognitive, social, and emotional domains of human development from conception to death. A variety of psychological issues including learning, personality, moral behavior, and psychological well-being and life satisfaction across the lifespan are discussed. Examining the research in these areas allows students to understand and appreciate different perspectives on cultural, ethnic, and gender issues. (45-0-0-0) *Equivalent to 80-230, PSYC-110*

SOC-110 Introduction to Sociology (3 s.h.)
This is an introductory survey course; sociology is the scientific study of society. Inquiries into what holds societies together, what causes societies to change, and how social forces affect our daily lives are covered in this course. Topics covered include: culture and society, socialization, social research, groups, organizations, institutions, deviance, gender, race, and ethnicity. An emphasis is placed on cultural diversity. (45-0-0-0) *Equivalent to 80-110, SOCS-101*

SOC-115 Social Problems (3 s.h.)
Prerequisite: SOC-110 Introduction to Sociology is recommended
Corequisite: SOC-881 Social Responsibility and Community Service is recommended.
An introduction to the study of contemporary social problems. The course examines how social problems are identified, explores underlying conditions and causes of social problems, and considers possible solutions and policy implications. Emphasis is on sociological and critical thinking frameworks. Topics of exploration include: mental illness, substance abuse, crime, prejudice and discrimination, prostitution, poverty, and more. (45-0-0-0) *Equivalent to 80-111, SOCS-103*

SPC-112 Public Speaking (3 s.h.)
Students will study the theory and practice of public speaking as an intellectual tool for use in argumentation and persuasion in a democratic society. This course prepares the student for a variety of speaking situations, both formal and informal, with an emphasis on speech preparation, organization, support, delivery, and audience analysis. (45-0-0-0)

WBL-100 Exploring Careers (3 s.h.)
This course will provide guidance in choosing a career goal and preparing for employment. Emphasis will be placed on identifying interests, abilities, and values, and exploring options for careers. Students will learn how to access labor market information and employment trends. Additionally, students will develop the skills and aptitudes necessary to obtain employment, emphasizing the development of characteristics associated with job success. (45-0)

WBL-110 Employability Skills (2 s.h.)
Corequisite: WBL-150 Job Shadowing recommended.
This course is designed to assist students in developing the skills necessary to obtain employment, and to learn and practice the skills and attitudes required for job success. Students will practice resume writing, job application completion, and interviewing techniques. Additionally, students will practice workplace problem-solving strategies, and demonstrate skills required to work in a diverse environment. (30-0-0-0)

WBL-150 Job Shadowing (1 s.h.)
Prerequisite: WBL-100 Exploring Careers recommended.
Students in this course will explore a field of interest while developing research skills, professionalism, and building occupational knowledge. Students will visit workplaces of interest to learn about specific jobs and professional requirements, and to develop a basic knowledge of the organization's structure and values (7.5-15-0-0)

WBL-200A Practicum/Field Experience (1 s.h.)
Prerequisite: WBL-100 Exploring Careers, or WBL-110 Employability Skills, or BUS-162 Workplace Professionalism, or instructor approval.
Offered under the guidance of an instructor and employer mentor/supervisor, this course provides students an opportunity to learn in a work setting while obtaining practical experience in their chosen field of study. Students will participate in job training, and will complete assignments to develop workplace communication skills, gain an understanding of industry and organizational structures, and learn problem-solving skills in a work environment. (7.5-0-0-30)

WEL-335 Ag & Industry Welding (2 s.h.)
This is a basic arc/oxy-fuel welding and cutting course. The students will perform introductory skills in SMAW, GTAW, and GMAW welding, oxy-acetylene welding, and oxy-fuel cutting. The student learns safety procedures relating to welding subjects and general shop safety. (15-30-0-0)