

Clear Creek Amana High School



Program of Studies 2024-2025

Revised 2/28/24

Clear Creek Amana Community School District

DISTRICT OFFICE

1486 Highway 6 NW
Oxford, Iowa 52322

BOARD OF EDUCATION

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NOTICE OF NONDISCRIMINATION

It is the goal of the board to develop a healthy social, intellectual, emotional, and physical self-concept in the students enrolled in the school district. Each student attending school will have the opportunity to use its education program and services as a means for self-improvement and individual growth. In so doing, the students are expected to conduct themselves in a manner that assures each student the same educational opportunity. The Clear Creek Amana Community School District does not discriminate on the basis of race, color, national origin, sex, disability, religion, creed, age (for employment), marital status (for programs), sexual orientation, gender identity and socioeconomic status (for programs) in its educational programs and its employment practices. The belief in equal educational opportunity serves as a guide for the board and employees in making decisions relating to school district facilities, employment, selection of educational materials, equipment, curriculum, and regulations affecting students. There is a grievance procedure for processing complaints of discrimination. If you have questions or a grievance related to this policy please contact Associate Superintendent, 1486 Hwy 6 NW, Oxford, IA, 52322, 319-828-4510, or the School Business Officer, 1486 Hwy 6 NW, Oxford, IA, 52322, 319-828-4510. Board policies, rules and regulations affect students while they are on school district property or on property within the jurisdiction of the school district; while on school owned and/or operated school or chartered vehicles; while attending or engaged in school activities; and while away from school grounds if misconduct will directly affect the good order, efficient management and welfare of the school district. The board requires all persons, agencies, vendors, contractors and other persons and organizations doing business with or performing services for the school district to subscribe to all applicable federal and state laws, executive orders, rules and regulations pertaining to contract compliance and equal opportunity.

Inquiries by students regarding compliance with equal educational opportunity and affirmative action laws and policies, including but not limited to complaints of discrimination, are directed to the Affirmative Action Coordinator by writing to the Affirmative Action Coordinator, Associate Superintendent, Clear Creek Amana Community School District, Oxford, Iowa 52322; or by telephoning, 319-828-4510. Inquiries by students regarding compliance with equal educational opportunity and affirmative action laws and policies, including but not limited to complaints of discrimination, may also be directed in writing to the Director of the Region VII office of Civil Rights, U.S. Department of Education, John C. Kluczynski Federal Building, 230 S. Dearborn St., 37th Floor, Chicago, IL, 60604 (312) 730-1560, fax (312) 730-1576 OCR.Chicago@ed.gov, the Iowa Civil Rights Commissioner, <https://icrc.iowa.gov>, (515) 281-4121 or the Iowa Dept. of Education, Grimes State Office Bldg., Des Moines, IA 50319. (515) 281-5294. This inquiry or complaint to the federal or state office may be done instead of, or in addition to, an inquiry or complaint at the local level.

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Clear Creek Amana Mission Statement

The mission of the Clear Creek Amana Community School District is to prepare students to be productive, responsible, community members by providing an environment that inspires quality life-long learning.

Clear Creek Amana Vision Statement

Stakeholders in Clear Creek Amana expressed a strong desire for an educational experience that would be broad and deep—one that embraces the complexity of human learning and the excitement that comes from intensely personal learning experiences. Further, they want a public school system that serves the community, not just its children. They want a school system that offers choices and exhibits flexibility and openness—a system that can change with the times to keep itself current with technology and social issues. They want a system that capitalizes on individual learner strengths and interests at the same time it conveys social skills and dispositions that lead to strong groups and community integrity.

Graduation Requirements

Graduates need a total of 56 credits. One credit is awarded each semester per successful completion of each course.

Clear Creek Amana High School's Specific Graduation Requirements:

Language Arts	8 credits
Social Studies	6 credits
Personal Finance	1 credit
Math	6 credits
Science	6 credits
Health	2 credits
Fine Arts	1 credit
Physical Education	4 credits (Students must take a minimum 1 semester each year)
Electives	22 credits

Language Arts (8 credits) including:

English 9, year (2 credits)

English 10, year (2 credits)

Juniors/Seniors *Year courses (2 credits)*: AP Language and Composition, AP English Literature, Composition or Comp 1 and Comp II (offered through Kirkwood Community College Arts and Sciences Academy or on site)

Semester courses (1 credit each): Science-Fiction and the Literature of the Imagination, Crime in Literature and Nonfiction, Literature of Identity and Community, Logic and Argumentation, Literature of War and Conflict, Superheros and Society

Social Studies (6 credits) including:

Survey of Social Studies, year (2 credits)

American History, year (2 credits) or AP American History (2 credits)

American Government, semester (1 credit) or AP Government (when offered)

One additional Social Studies elective (1 semester)

We strongly encourage more than the required 6 credits.

Science (6 credits)

Earth Science, year (2 credits)

Biology, year (2 credits)

Chemistry or Conceptual Chemistry (1 credit)

Physics or Conceptual Physics (1 credit)

College bound "required" electives (4 yrs): Both Chemistry and Physics.

Non-College bound "required" elective (3 yrs).

We strongly encourage more than the required 6 credits.

Mathematics (6 credits) earned in grades 9-12

All students in grades 9 - 11 shall be enrolled in a mathematics course regardless of current credit attainment.

We strongly encourage more than the required 6 credits.

Fine Arts, (1 credit)

Health, year (2 credits)

Personal Finance (1 credit)

Physical Education, 4 credits-1 credit per year is required.

Schedule Change Policy

Our scheduling software (powerschool) completes all student schedules based on classes that students have requested. As Counselors/Administrators, we do have the ability to adjust those schedules on a limited basis. We have two equal responsibilities when it comes to making schedule adjustments: 1. To place students into the classes that they requested (as much as possible) and 2. To ensure safe and equitable class sizes (as much as possible). **A request is not a guarantee of enrollment.** Changes should only be requested if a student needs a different course, we do not change schedules for personal preference of block or teacher. Any changes that are made will be reflected within PowerSchool. High School students do have the ability to change courses without parental permission, however, it is strongly encouraged by the school counseling office that all schedule changes are discussed with parents prior to a change being made.

Seniors must be enrolled in a minimum of 5 classes. (That might include classes at CCAHS and PSEO or KCC Academy classes.)

9th, 10th and 11th grade students must be enrolled in 8 classes.

Course Descriptions

AGRICULTURAL EDUCATION

9th Grade	10th Grade	11th Grade	12th Grade
*Introduction to Agriculture, Food, and Natural Resources (AFNR)	*Introduction to Agriculture, Food, and Natural Resources (AFNR) *Animal Science *Plant Science *Agricultural Business & Marketing *Natural Resources	*Introduction to Agriculture, Food, and Natural Resources (AFNR) *Animal Science *Plant Science *Food Science and Safety *Prin. of Agronomy *Survey of Animal Industry *Agricultural Business & Marketing *Natural Resources	*Introduction to Agriculture, Food, and Natural Resources (AFNR) *Animal Science *Plant Science *Food Science and Safety *Prin. of Agronomy *Survey of Animal Industry *Agricultural Business & Marketing *Natural Resources

Introduction to Agriculture, Food, and Natural Resources (AFNR)
Year/ 2 credits (9)

Course Number: 329AFNR
Prerequisite: None

Woven throughout the course are activities to develop and improve employability skills of students through practical applications. Students will explore career and post-secondary opportunities in each area of the course. Students participating in the *Introduction to Agriculture, Food, and Natural Resources* course will experience hands-on activities, projects, and problems. Student experiences will involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students will work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise. [Course Essential Standards](#)

Animal Science
Sem/ 1 credits (10-12)

Course Number: 329PASA
Prerequisite: Completion of biology highly recommended

Student experiences will involve the study of animal anatomy, physiology, behavior, nutrition, reproduction, health, selection, and marketing. For example, students will acquire skills in meeting the nutritional needs of animals while developing balanced, economical rations. Throughout the course, students will consider the perceptions and preferences of individuals within local, regional, and world markets. Students will explore hands-on projects and activities to learn the characteristics of animal science and work on major projects and problems similar to those that animal science specialists, such as veterinarians, zoologists, livestock producers, and industry personnel, face in their respective careers. Students will investigate, experiment, and learn about documenting a project, solving problems, and communicating their solutions to their peers and members of the professional community. [Course Essential Standards](#)

*Students can earn their Youth Quality Assurance certification in this course.

*Students can earn their Beef Quality Assurance certification in this course.

Plant Science
Sem/ 1 credits (10-12)

Course Number: 329PM
Prerequisite: None

Students will learn how to apply scientific knowledge and skills to use plants effectively for agricultural and horticultural production. Students will discover the value of plant production and its impact on the individual, the local, and the global economy. Lessons throughout the course will provide an overview of the field of agricultural science with a foundation in plant science. These lessons include working in teams and exploring hands-on projects. Students will work on major projects and problems similar to those that plant science specialists, such as horticulturalists, agronomists, greenhouse and nursery managers, and plant research specialists, face in their respective careers. [Course Essential Standards](#)

*Students can earn their Private Applicator certification in this course.

Food Science and Safety
Sem/1 Credits (11-12)

Course Number: 747
Prerequisite: (AFNR)

Students will complete hands-on activities, projects and problems that stimulate concepts and situations found in the food science and safety industry. This will allow students the opportunity to build content knowledge and technical skills. Students will investigate areas of food science, including food safety, food quality, food chemistry, food processing, food product development, marketing and consumer behavior. Research and experimental design will be highlighted as students develop and conduct industry appropriate investigations. Students will investigate, experiment, and learn about the science and safety surrounding food. While completing activities throughout this course, students will be documenting a food development project, solving problems, and communicating solutions to their peers and members of the professional community. [Course Essential Standards](#)

Survey of Animal Industry-KCC
Sem. /1 credit (11-12)

Course Number: 546

Prerequisites: Meets Kirkwood qualifying requirements

Introduces students to the various species and breeds of domestic animals and to create an understanding of the principles of food animal production, product marketing and issues confronting the animal industry. This is a college level course and you will receive credit from Kirkwood Community College by passing this class.

[Course Essential Standards](#)



Principles of Agronomy-KCC
Sem. /1 credit (10-12)

Course Number:

Prerequisites: Meets Kirkwood qualifying requirements

This course will provide the students essential knowledge and skills necessary for a solid orientation in the Agronomy field. Areas of study include climate and plant growth, botanical nomenclature, anatomy, propagation, plant nutrition, and an introduction to the diverse career field involved with the agronomy industry.

[Course Essential Standards](#)



Agricultural Business & Marketing
Sem. /1 credit (10-12)

Course Number: 737

Prerequisite: None

This course is designed to be an introduction to agribusiness management in the free enterprise system with an emphasis on management of production agriculture. Instruction includes a study of basic management concepts, government policy, economic principles, budgeting, accounting, finance, risk management, and factors of production and marketing. Projects will involve discussion of current agricultural topics and developing a marketing plan for your own business. [Course Essential Standards](#)

Natural Resources
Sem. /1 credit (10-12)

Course Number: 66

Prerequisite: None

Students in this course will have a variety of experiences in the fields of natural resources and ecology. Students will explore hands-on projects and activities while studying topics such as land use, water quality, stewardship, and environmental agencies. Study of the natural world including biomes, land, air, water, energy, use and care as well as a focus on issues surrounding man's interaction with the Earth will be addressed in this course. [Course Essential Standards](#)

ART

9th Grade	10th Grade	11th Grade	12th Grade
*Glassworks	*Glassworks	*Glassworks	*Glassworks
*Glassworks II	*Glassworks II	*Glassworks II	*Glassworks II
*Drawing I & II	*Drawing I & II	*Drawing I & II	*Drawing I & II
*Painting I & II	*Painting I & II	*Painting I & II	*Painting I & II
*Ceramics I & II	*Ceramics I & II	*Ceramics I & II	*Ceramics I & II
*Graphic Design	*Graphic Design	*Graphic Design	*Graphic Design
*Photography: Digital	*Photography: Digital	*Photography: Digital	*Photography: Digital
*Printmaking	*Printmaking	*Advanced Art *Printmaking	*Advanced Art *Printmaking

Photography: Digital
Sem/ 1 Credit (9-12)

Course number: 699PHDI
Prerequisite: None

An introduction to producing imagery using a digital camera and Adobe Photoshop. Focus will be on building a basic knowledge of the elements of composition and utilizing them in their photographs. Students will be introduced to the basic image manipulation and enhancement in Adobe Photoshop. Discussions and critiques will be an important aspect of the class. Students must have access to a digital camera of some form – a quality phone camera or a DSLR camera. Students will be expected to shoot photos for these assignments. [Course Essential Standards](#)

Glassworks
Sem/ 1 credit (9-12)

Course Numbers: 103
Prerequisite: None

This class will introduce students to the medium of stained glass and mosaics. Students will learn glass cutting techniques, design and build their own glass projects. The history of stained glass will be covered as well as well as contemporary artists working with glass. Basic understanding of the design elements and principles will be used in projects. [Course Essential Standards](#)

Glassworks II
Sem/ 1 Credit (9-12)

Course Number: 103B
Prerequisite: Glassworks I

This class is a second level course in stained glass. Students must have successfully passed Glassworks with a C+ or above to take this class. Projects will be bigger and include a 3-D piece. Students will focus on honing their skills and create tutorials on techniques to show understanding. Students will be asked to provide their own glass. [Course Essential Standards](#)

Drawing I:
Sem./ 1 credit (9-12)

Course number: 101D
Prerequisite: None

This course provides introductory experiences with a variety of drawing exercises and materials. Problems in perspective, shading and structural problems in still-life, landscapes and figure drawing. The elements and principles of art and their function within art will be emphasized. Students will be expected to keep a sketchbook to work in both in class and homework assignments. Art history lessons will provide students with insight into how the creation of art has progressed over time. [Course Essential Standards](#)

Painting I:
Sem./ 1 credit (9-12)

Course number: 101P
Prerequisite: None

This course introduces students to painting techniques in both acrylic and watercolor mediums. Problems in color theory, color mixing will be emphasized through studio practice and project completion. A variety of techniques and tools will be used to help the students develop their personal style. Elements and principles of art will be applied as well as historical references to a variety of painters over the past centuries. [Course Essential Standards](#)

Drawing II:
Sem./ 1 credit (9-12)

Course number: 101
Prerequisite: Drawing I

In this class students will continue their studies in drawing at a higher level. All students will be expected to be self-motivated, passionate in developing their own creative style and become secure in self and peer reflection. Students will engage in research and discovery of artists working in the mediums of drawing, both in a historical and contemporary context. [Course Essential Standards](#)

Painting II:
Sem./ 1 credit (9-12)

Course number: 101
Prerequisite: Painting I

In this class students will continue their studies in painting at a higher level. All students will be expected to be self-motivated, passionate in developing their own creative style and become secure in self and peer reflection. Students will engage in research and discovery of artists working in the mediums of painting, both in a historical and contemporary context. [Course Essential Standards](#)

Ceramics I
Semester/ 1 credit (9-12)

Course number: 105
Prerequisite: None

Students will have hands-on experience working with clay and ceramic glazes. Hand building techniques including pinch pots, coil pots and slab vessels will be explored. Students will also experiment with creating non-functional sculptural works out of clay. Terminology and concepts necessary for understanding how clay is created, fired and decorated will be discussed. Projects will be supported by the study of ceramic creation reaching from ancient times to artists working today. [Course Essential Standards](#)

Ceramics II:
Semester/ 1 credit (9-12)

Course number:126
Prerequisite: Ceramics I

This course is designed as a follow-up course to Ceramics I with emphasis on the student using previously learned skills to create more technically advanced and individualized work. During this course students will have the opportunity to learn wheel throwing techniques to create a vessel of their choosing. Ancient and contemporary ceramic artists will be used as inspiration for student projects. [Course Essential Standards](#)

Graphic Design
Sem. /1 credit (9-12)

Course number: 107
Prerequisite: None

Graphic design is all about visual communication. It is everywhere in our world. Students will use their knowledge of Elements and Principles of Design apply them to formal projects and be introduced to Adobe Illustrator as a graphic design tool. Projects could include: t-shirt design and screen printing, logo design and posters. Historical applications, discussions and critiques will be an important aspect of the class. [Course Essential Standards](#)

Advanced Art
Sem/1 credit (11-12)

Course number: 108
Prerequisites: C+ or above in at least three different art courses & teacher approval.

Advanced Art is an opportunity for the artist to explore and expand their skills in mediums of their choice and explore new techniques. Students should be self-motivated; able to work independently and willing to spend time outside of class on their artwork. Students will participate in discussions about artwork across a variety of mediums and eras. Along with individual work, students will be asked to participate in a class driven project. Students will learn to write artist statements and be expected to turn one in with each project. [Course Essential Standards](#)

Printmaking

Sem. /1 credit (9-12)

Course number: 2038

Prerequisite: None

This course is designed to introduce high school students to the art of printmaking, covering techniques such as monoprinting, block printing, and screen printing. Throughout the course, students will explore the historical and cultural significance of printmaking while developing their technical skills and creative expression. Students will experiment with different materials, tools, and printing surfaces, while honing their understanding of composition and visual storytelling. By the end of the course, students will have developed a portfolio of original prints and gained a deeper appreciation for the art of printmaking.

BUSINESS

9th Grade	10th Grade	11th Grade	12th Grade
*Intro to Business * Computer Business Applications *Sports & Entertainment Marketing *Entrepreneurship	*Intro to Business * Computer Business Applications *Sports & Entertainment Marketing * Accounting I *Business Law *Entrepreneurship	*Intro to Business * Computer Business Applications *Sports & Entertainment Marketing * Accounting I * Accounting II *Business Law *Entrepreneurship	*Intro to Business * Computer Business Applications *Sports & Entertainment Marketing * Accounting I * Accounting II *Business Law *Entrepreneurship

Accounting I

Year/2 credits (10-12)

Course number: 109

Prerequisite: None

Presentation of basic concepts (e.g., debits, credits, transactions, journals, ledgers) and use of a contemporary practice set. The course gives an overall picture of the total process of accounting business systems, which is a good base for further study in business areas and career advancement in the business world.

[Course Essential Standards](#)

Accounting II
Year/2 credits (11-12)

Course number: 110
Prerequisite: Accounting I

This class is a continuation of the concepts of Accounting I with additional emphasis given to corporate and cost accounting. We will also complete one contemporary practice set. Especially recommended for anyone pursuing a career in accounting. [Course Essential Standards](#)

Business Law
Sem/1 credit (10-12)

Course number: 080
Prerequisite: None

For better or worse, we have become a law oriented and litigation-prone society. People are more conscious than ever of their rights. Business, along with other areas, has felt this public pressure. Business law, therefore, is the study of laws that will benefit students by allowing them to better understand the world in which they live. Students will be better equipped than most citizens to recognize legal problems and to utilize professional counsel. [Course Essential Standards](#)

Computer Business Applications
Sem. /1 credit (9-12)

Course number: 111
Prerequisite: None

This course introduces Microsoft Office, using Word and Excel. We will create and edit documents, worksheets, and charts. All students will benefit from this class because it provides a basic understanding of Word and Excel, which will be used in most high school classes and beyond high school. The class will work on various projects daily. [Course Essential Standards](#)

Introduction to Business
Semester/1 credit (9-12)

Course number: 112
Prerequisite: None

This course is designed to provide an overall look at the key components in the business world. Subjects covered include: banking, management, ethics, workers and the law, international trade, operations and organizational structures. You will use a computer simulation to design and operate your own retail store. [Course Essential Standards](#)

Sports & Entertainment Marketing
Sem/1 credit (9-12)

Course number: 113
Prerequisite: None

This class will provide a broad overview of the marketing process. Students will learn the ways products progress through the channels of distribution to the promotional phase of the marketing strategy. Marketing includes all the activities and functions required in business and organization to get goods, services, or ideas from where they are produced to where they are consumed. Knowledge of marketing is indispensable to a person who plans a business career. A computer simulation will be used to reinforce the concepts of this class. [Course Essential Standards](#)

Entrepreneurship
Sem/1 credit (9-12)

Course number: 114

Prerequisite: One of the following: Accounting, Law, Sports Marketing or Introduction to Business.

Students will learn about starting and running their own business. A business plan will be developed after exploring topics such as innovation and creativity, business opportunities, marketing, finance, operations, and human relations. This course could lead to college credit with an acceptable summative test score through the University of Iowa. [Course Essential Standards](#)

Career Development & Leadership

9th Grade	10th Grade	11th Grade	12th Grade
*Leadership *How College Works *Employability Skills	*Leadership *How College Works *Employability Skills	*Leadership *Teaching Assistant *How College Works *Employability Skills	*Leadership * MOC/Career Exploration *Teaching Assistant *How College Works *Employability Skills

MOC/Career Exploration
Sem/1 credit (12)

Course number: 057
Prerequisite: None

In this course students will gain workplace experiences through job shadowing and internship experiences. The goal is that students have work experience in a field related to their interest. Goals are typically set cooperatively by student, teacher and employer (although students are not necessarily paid.)

Leadership
Sem/1 credit (9-12)

Course number: 021
Prerequisite: None

Students in this course will learn about different leadership characteristics, qualities, and strategies, and how to apply them in their lives. This class will actively utilize leadership skills weekly through in class activities and through in class discussions and classwork. This class will also ask students to reflect upon their own leadership experiences and how they can improve their effectiveness as a leader in their day to day lives.

Teacher Assistant
Sem/1 credit (11-12)

Course number: 2032
Prerequisite: Teacher Approval

The 21st Century Educational Commitment to all individuals in high school includes the promise that all students will graduate from high school College and Career Ready. Regardless of the direction a student chooses, they must make their own decisions and an educational plan must be in place to meet the goals and provide a learning structure. The Clear Creek Amana High School Aide Program allows students to prepare for the world of work, earn high school elective credit and assist our High School teachers in their classrooms.

The High School Aide program is also designed to foster positive relationships between high school age students. It will give the participant an opportunity to assist in a high school classroom working with an assigned cooperating teacher and his or her students to enhance the educational environment of students at our high school. The program also provides documentation that supports Career Based Skills and verification and accountability.

How College Works
Sem/1 credit (9)

Course number: 708
Prerequisite: None

Self assessment of skills, interests, values and personality types to match natural abilities with best fit majors or careers. Discussion of success in college and life with an emphasis on communication skills, interpersonal skills, characteristics for personal growth, and wellness.

Kirkwood
COMMUNITY COLLEGE

ENGINEERING (Project Lead the Way)

9th Grade	10th Grade	11th Grade	12th Grade
<p>*Introduction to Engineering Design (IED)</p> <p>*Introduction to Computer Science</p>	<p>*Introduction to Engineering Design (IED)</p> <p>* Principles of Engineering (POE)</p> <p>*Civil Engineering and Architecture</p> <p>*Introduction to Computer Science</p> <p>*Computer Science Engineering</p> <p>*Computer Science Principles</p>	<p>*Introduction to Engineering Design (IED)</p> <p>* Principles of Engineering (POE)</p> <p>*Digital Electronics (DE)</p> <p>*Civil Engineering and Architecture</p> <p>*Introduction to Computer Science</p> <p>*Computer Science Engineering</p> <p>*Computer Science Principles</p>	<p>*Introduction to Engineering Design (IED)</p> <p>* Principles of Engineering (POE)</p> <p>*Digital Electronics (DE)</p> <p>*Civil Engineering and Architecture</p> <p>*Introduction to Computer Science</p> <p>*Computer Science Engineering</p> <p>*Computer Science Principles</p>

Introduction to Engineering Design (IED)

Year/2 credits and 3 college credit hours (9-12)

Course number: 529

Prerequisite: Currently in or above Algebra 1

This is the first course offered in the high school pre-engineering curriculum Project Lead the Way. It is a perfect class for students considering a career in engineering or even for those who just want to find out more about it. The focus of the class will revolve around learning and using the design process. Many skills and concepts such as sketching, measurement, geometry, drafting, statistics and 3-D Modeling with Autodesk Inventor are tools used by students while working through a variety of individual and cooperative design projects. [Course Essential Standards](#).



Principles of Engineering (POE)

Year/2 credits and 3 college credit hours (10-12)

Course numbers: 530

Prerequisites: Intro to Engineering Design and completion of Algebra I enrollment in Algebra II or higher.

A wide variety of engineering and technology careers will be explored in this class that teaches students firsthand how engineers use math, science, and technology to solve problems and benefit people. Topics and activities will be centered on mechanisms, thermodynamics, kinematics, control, fluid and electrical systems, statics and strengths of materials. We will continue the study of engineering communications and documentation as well as the design process that was begun in the Introduction to Engineering Design class.

[Course Essential Standards](#)



Digital Electronics (DE)

Year/2 credits, 3 college credit hours (11-12)

Course number: 303

Prerequisites: Principles of Engineering (PLTW), Co-requisite:

Approved college-prep math course.

(This course is offered if numbers are warranted)

This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

[Course Essential Standards](#)



Civil Engineering and Architecture

Year/2 credits and 3 college credit hours (10-12)

Course number: 531

(This course is offered if numbers are warranted)

Introduces students to the interdependent fields of civil engineering and architecture; students learn project planning, site planning, and building design. Prerequisite: NONE, Co-requisite: Approved college-prep math course (This class or your high schools CEA class can be Part of Kirkwood's ACE Academy Program- see counselor for more information) [Course Essential Standards](#)



Introduction to Computer Science

Semester/1 credit (9-12)

Course number: 721

Designed to be the first computer science course for students who have never programmed before, ICS is an optional starting point for the PLTW Computer Science program. Students work in teams to create apps for mobile devices using MIT App Inventor®. They explore the impact of computing in society and build skills in digital citizenship and cybersecurity. Beyond learning the fundamentals of programming, students build computational thinking skills by applying computer science to collaboration tools, modeling and simulation, and data analysis. In addition, students transfer the understanding of programming gained in App Inventor to text-based programming in Python® and apply their knowledge to create algorithms for games of chance and strategy. [Course Essential Standards](#)

Computer Science Engineering

Year/2 credits (9-12)

Course number: 537

Prerequisite: IED, Intro to Computer Science

(This course is offered if numbers are warranted)

This course aims to develop computational thinking, generate excitement about career paths that utilize computing, and introduce professional tools that foster creativity and collaboration. CSE helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, robotics, and simulation. [Course Essential Standards](#)



Computer Science Principles

Year/2 credits (10-12)

Course number: 030

Prerequisite: (This course is offered if numbers are warranted)

Computer Science Principles (1 year) Using Python® as a primary tool, students learn the fundamentals of coding, data processing, data security, and task automation, while learning to contribute to an inclusive, safe, and ethical computing culture. The course promotes computational thinking and coding fundamentals and introduces computational tools that foster creativity. Computer Science Principles helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, and simulation.

**FAMILY AND CONSUMER SCIENCES**

9th Grade	10th Grade	11th Grade	12th Grade
*Textiles and Construction	*Textiles and Construction	*Textiles and Construction	*Textiles and Construction
* Fashion Marketing	* Fashion Marketing	* Fashion Marketing	* Fashion Marketing
* Intro to Foods & Nutrition	* Intro to Foods & Nutrition	* Intro to Foods & Nutrition	* Intro to Foods & Nutrition
* Advanced Foods & Nutrition	* Advanced Foods & Nutrition	* Advanced Foods & Nutrition	* Advanced Foods & Nutrition
*Child Development	*Child Development	*Food Production	*Food Production
*Interior Design	*Interior Design	*Child Development	*Child Development
	*Culinary Arts	*Interior Design	*Interior Design
	*Parenting	*Culinary Arts	*Culinary Arts
	*Hospitality & Tourism	*Parenting	*Parenting
		*Hospitality & Tourism	*Hospitality & Tourism
		*Personal Finance	*Personal Finance

Textiles and Construction

Sem. /1 credit (9-12)

Course number: 016

Prerequisite: None

Course Description: This course is designed for the student interested in apparel and textile construction with a focus on industry and entrepreneurial skills. Students will learn basic sewing equipment, hand and machine stitching, characteristics and care of textiles, how to use a sewing pattern and basic construction skills. Required projects include a hand stitched owl and pin cushion, a machine stitched neck wrap, zipper pouch, eye pillows (community service) and a jewelry bag. Additional projects include a Hobo bag and a pleated tote bag.

[Course Essential Standards](#)

Fashion Marketing
Sem. /1 credit (9-12)

Course number: 017
Prerequisite: None

This course is everything you ever wanted to know about the fashion industry. It will include units on fashion, trend research, clothing design, and merchandising. Students will complete an online Fashion simulation that includes lessons on buying, pricing, retail locations, window displays, staffing and selling strategies, media promotion and fashion finance. We will look at career opportunities in the exciting world of fashion as well as business components and entrepreneurship. [Course Essential Standards](#)

Introduction to Food & Nutrition
Sem. /1 credit (9-12)

Course number: 018
Prerequisite: None

This course is designed to prepare students to become self-sufficient in the kitchen in all aspects including safety and sanitation, kitchen equipment and management and food preparation. This class will focus on basic cooking techniques while cooking grains, eggs, dairy, fruits, vegetables, and cakes and cookies. We will be preparing wholesome, nutrient-rich recipes in labs that will allow students to apply the skills they have learned. A focus on careers will conclude the semester. [Course Essential Standards](#)

Please be aware that this class may use ingredients that a student is allergic to. In those situations, the student will be offered an alternate setting with an alternate activity.

Advanced Food & Nutrition
Sem. /1 credit (9-12)

Course number: 019
Prerequisite: Intro to Foods & Nutrition

Advanced Foods explores the connections between what we eat and the cultures around us. Included in the course will be units on safety & sanitation (food handler certification), basic cooking methods, and units on meat, poultry, fish, soups, salads, and casseroles (food truck). We will look at foods across the US as well as travel around the globe (Latin America, Europe, Mediterranean Countries, Middle East and Africa, and Asia) looking at the history and topography of each country as it relates to each region's dietary customs, cuisines and cooking methods. The class will conclude with a unit on careers in the human services cluster.

[Course Essential Standards](#)

Please be aware that this class may use ingredients that a student is allergic to. In those situations, the student will be offered an alternate setting with an alternate activity.

Culinary Arts
Sem/1 credit (10-12)

Course number: 427
Prerequisites: Intro. to Food & Nutrition &
Advanced Food and Nutrition

Looking for more in-depth culinary skills? Culinary Arts is for you! Refine your knife skills as well as explore herbs/spices, appetizers, sandwiches, stocks, sauces, and soups. We will deep dive into baking and pastry items. If you've ever dreamed of creating amazing desserts or breads, this course will introduce you to pastries, fillings, cakes and cookie production. We will also explore career opportunities and employment skills required in the foodservice industry. [Course Essential Standards](#)

Food Production

Sem. /1 credit (11-12 only)

Prerequisite: Intro to Foods and either Advanced Foods or Culinary Arts

Course number: 7471

Food Production is the capstone course for the Culinary sequence. This course gives students experience in quantitative cooking, cooking for large numbers, and business operation through a class run Take and Bake business. As an employee of the operation, students will have the opportunity to experience a job in the food service industry. Students will be experts on commercial baked products like cookies, quick breads, yeast breads, cakes, pies, and pastries as well as prepared meals for take and bake.

(11-12), prerequisite - Intro to Foods and either Advanced Foods or Culinary Arts. [Course Essential Standards](#)

Personal Finance

Sem. /1 credit (11-12 only)

Course number: 263

Prerequisite: None

Foundations in Personal Finance is designed to help teach students important personal financial skills in saving and budgeting as well as credit and debt. Topics include saving, budgeting, debt, life after high school, consumer awareness, bargain shopping, investing and retirement, insurance, money and relationships, careers and taxes. [Course Essential Standards](#)

Child Development

Sem. /1 credit (9-12)

Course number: 022

Prerequisite: None

Do you have an interest in working with children for a future career? Do you think you may become a parent someday? This course takes a closer look at child development from conception to kindergarten. We will explore physical, intellectual, social, emotional, and moral development of infants, toddlers, preschoolers and school age children! Students will learn ages and stages of children, child safety, effective discipline techniques, and creative child friendly activities and snacks. This course is very interactive with powerpoints, notes, activities and projects. [Course Essential Standards](#)

Interior Design

Sem. /1 credit (9-12)

Course number: 428

Prerequisite: None

Housing/Home Furnishing is designed to help students make wise housing decisions regarding construction, furnishing, and decorating a home. Topics of study will include housing and human needs, choosing a place to live, understanding house plans, elements and principles of design, textiles in the home, furniture styles and selection, windows and lighting. [Course Essential Standards](#)

Parenting

Sem./ 1 credit (10-12)

Course number: 020

Prerequisite: None

This course is designed to help students look at different aspects of parenting and parenthood. Philosophies of parenting techniques are explored. The focus is to encourage the student to think about parenting, the many choices and responsibilities with such a role, and how one can be an effective parent. Myths of parenting along with legal consequences of child neglect and abuse will be studied. How to provide a positive environment for development from conception to 18 years will be explored. Students will be participating in the Baby Think It Over project or an alternative project. Students will study the relationship of positive parenting and nurturing responsible self-disciplined children capable of critical thinking. [Course Essential Standards](#)

INDUSTRIAL TECHNOLOGIES

9th Grade	10th Grade	11th Grade	12th Grade
*Introduction to Architecture, Construction & Engineering *Mechanical Drafting	*Introduction to Architecture, Construction & Engineering *Mechanical Drafting *Construction Material Processing *Intro to Manufacturing *Construction Technology	*Introduction to Architecture, Construction & Engineering *Mechanical Drafting *Construction Material Processing *Intro to Manufacturing *Construction Technology	*Introduction to Architecture, Construction & Engineering *Mechanical Drafting *Construction Material Processing *Intro to Manufacturing *Construction Technology

Introduction to ACE

Sem. /1 credit (9-12)

Course number: 023

Prerequisites: None

This course is an introductory prerequisite for any other class taken in the Industrial Technology area. It is designed to give students a basic introduction and overview to the topics available within the Industrial Technology Department. It will cover a wide range of study of the following areas; Architecture and Construction, Graphic Communication, Manufacturing, Power and Energy, and Transportation. Most units will include safety, hands-on work, and in some areas a project. The curriculum is designed around exploration of these systems and their impacts on society. Students will also develop problem-solving skills, explore career awareness, and relate technology to math and science. [Course Essential Standards](#)

Mechanical Drafting
Sem. /1 credit (9-12)

Course number: 027
Prerequisite: Intro to ACE

This is a foundation course for those students desiring to gain basic knowledge and fundamental skills in mechanical drawing and beginning architecture. Plans will be made/drawn on a board since all manufactured products begin on a drawing board. Students will learn how to produce and read working drawings and blueprints. This course is designed for students who may pursue a job in the construction area, engineering, architecture, and other related fields. [Course Essential Standards](#)

Construction Material Processing
Sem. /1 credit (10-12)

Course number: 031
Prerequisite: Intro to ACE

Students will continue developing team building skills introduced in Introduction to Technology. This is a foundational course for the architecture and construction cluster. Students will learn proper construction terminology and safe instruction in hand and power tool usage through project construction. Students will experience plan development, reading project drawings, material identification, cost estimation and production. [Course Essential Standards](#)

Intro to Manufacturing
Sem. /1 credit (10-12)

Course number: 025
Prerequisite: Mechanical Drafting

Students will learn how to use the basic hand and power tools in sheet metal, welding, foundry sand casting molding and metal fabrication processing. This is an entry-level class but Mechanical Drawing/ Architectural Drafting is recommended prior to taking this course. Fee: \$10.00 [Course Essential Standards](#)

Construction Technology
Sem. /1 credit (10-12)

Course number: 032
Prerequisite: Construction Materials Processing

This course continues to expand upon the skills and techniques acquired in Construction Material Processing. Construction skills that will be acquired will include: machine skills and equipment usage, hand and power tool capabilities, time management, interpreting plans, specs and working drawings, problem solving and conflict resolution, and materials. [Course Essential Standards](#)

Kirkwood ACE Academy: <http://www.kirkwood.edu/johnsonacademies>

LANGUAGE ARTS

Students are required to take English 9, English 10 and 4 additional English credits to fulfill their English graduation requirements. English electives are offered and only count toward fulfilling general graduation requirements.

9th Grade	10th Grade	11th Grade	12th Grade
<p>*English 9</p> <p>*Film Analysis</p> <p>*Publications</p> <p>*Creative Writing</p> <p>*Newspaper</p> <p>*Yearbook</p>	<p>*English 9</p> <p>*English 10</p> <p>*Film Analysis</p> <p>*Publications</p> <p>*Creative Writing</p> <p>*Newspaper</p> <p>*Yearbook</p>	<p>*English 9</p> <p>*English 10</p> <p>*Film Analysis</p> <p>*Publications</p> <p>*ULA 2 -Literature of Identity and Community</p> <p>*ULA 3 -Logic and Argument</p> <p>*ULA 4- Crime in Literature and Nonfiction</p> <p>*ULA 5-The Literature of War and Conflict</p> <p>*ULA 6-Science-Fiction and the Literature of the Imagination</p> <p>*ULA 7-Superheroes and Society</p> <p>*AP Language and Composition</p> <p>*AP English Literature and Composition</p> <p>*Creative Writing</p> <p>*Newspaper</p> <p>*Yearbook</p>	<p>*English 9</p> <p>*English 10</p> <p>*Film Analysis</p> <p>*Publications</p> <p>*ULA 2 -Literature of Identity and Community</p> <p>*ULA 3 -Logic and Argument</p> <p>*ULA 4- Crime in Literature and Nonfiction</p> <p>*ULA5-The Literature of War and Conflict</p> <p>*ULA 6-Science-Fiction and the Literature of the Imagination</p> <p>*ULA 7-Superheroes and Society</p> <p>*AP Language and Composition</p> <p>*AP English Literature and Composition</p> <p>*Creative Writing</p> <p>*Composition I & II</p> <p>*Newspaper</p> <p>*Yearbook</p>

English 9

Year/2 credits (9-12)

Course number: 002

Prerequisite: Required Freshman year

Students will learn to analyze literature and apply it to their own experiences. Students will learn to critique and react to literary works. The main writing skills emphasized include paragraph and theme development, mechanics, and sentence structure. This will be accomplished through creative and expository writing. Students will also work on study skills and character development. Students not passing each semester of English 9 will be re-enrolled in English 9 the following school year. [Course Essential Standards](#)

English 10

Year/2 credits (10)

Course number: 003

Prerequisite: Required sophomore year

This course provides the opportunity for students to improve their reading, writing, listening, and speaking skills. A variety of reading selections including novels, poetry, drama, and non-fiction will provide opportunities for critical thinking. Students will be required to write multiple pieces throughout the year that will contain the steps of the writing process: pre-writing, drafting, revising, and publishing. Students not passing each semester of English 10 will be re-enrolled in English 10 the following school year.

[Course Essential Standards](#)**ULA 2 -Literature of Identity and Community**

Semester/1 English credit (11-12)

Course number:0051

Prerequisite: None

This course will focus on works of literature with specific connections to particular social groups, historical periods, and geographical regions. Students will read examples from world and American literature in an effort to understand how reading and writing build connections between authors, readers, and the world.

[Course Essential Standards](#)**ULA 3 -Logic and Argument**

Semester/1 English credit (11-12)

Course number:0052

Prerequisite: None

This course will focus on developing students' ability to craft and analyze rhetoric and other forms of persuasion. Students will study mainly nonfiction texts and contemporary media in an effort to analyze how to debate, recognize and respond to efforts to persuade them, make a clear argument, and recognize logical fallacies. [Course Essential Standards](#)

ULA 4- Crime in Literature and Nonfiction

Semester/1 English credit (11-12)

Course number:0053

Prerequisite: None

This course will focus on literature and nonfiction writing which explores how and why people reject and defy society's norms and laws. Students will read works about various infamous criminals, their crimes, and the criminal justice system, in both the real world and fictional contexts. [Course Essential Standards](#)

ULA 5- The Literature of War and Conflict

Semester/1 English credit (11-12)

Course number:2036

Prerequisite: None

Since the beginning of history, war has inspired some of our most important stories. We will explore stories of glory, valor, and honor, as well as stories of chaos, terror, and hell. These tales of war and conflict will help us to make sense of what it means to be human in our world. This course will focus on literature and other texts born out of war. For each text, students will also explore the historical context of the war or conflict of its setting, in order to better understand the people whose stories we hear. [Course Essential Standards](#)

ULA 6-Science-Fiction and the Literature of the Imagination

Semester/1 English credit (11-12)

Course number:004S1

Prerequisite: None

This course will focus on the genre of Science-Fiction as well as other speculative forms of literature. Students will explore how these fantastical plots, settings, and characters allow authors to both create unique worlds and make meaningful statements about the real world. [Course Essential Standards](#)

ULA 7-Superheroes and Society

Semester/1 English credit (11-12)

Course number:005

Prerequisite: None

Superheroes have had an impact on society since they were created. They were originally modeled after what society needed at the time. More recently, they have become role models in our society. We have real life heroes, science fiction heroes, heroes who get chosen by circumstance, etc. Each type of hero has their own place in society. This course will use our love of superheroes to understand ourselves, our society, and literature.

AP Language and Composition

Year/2 credits (11-12)

Course number: 115

Prerequisite: English 10

As stated in the *Advanced Placement Course Description*, the purpose of AP Language and Composition is to “enable students to read complex texts with understanding and to write prose of significant richness and complexity to communicate effectively with mature readers.” Through this course, students will examine how writing functions, how writers employ arguments, and how that writing can become effective or ineffective. Students will explore the diverse ways in which writers construct meaning for different audiences or purposes and with different rhetorical strategies. As the course progresses, students will become aware of their own writing processes through self-assessment and evaluation. These skills, behaviors, and attitudes will allow students to read critically and write effectively with multiple modes and perspectives in the college classroom and beyond. [Course Essential Standards](#)

AP English Literature and Composition

Year/2 credits (11-12)

Course number: 007

Prerequisite: English 10

AP Lit and Comp engages students in the careful reading and critical analysis of literature. Through the close reading and viewing of selected plays, poems, novels, podcasts, audio stories, and articles, students will deepen their understanding of the ways writers and speakers use language to provide both meaning and insight for their readers. Students consider a work's structure, style, themes as well as smaller elements such as the use of figurative language, imagery, symbolism, and tone. Students should be prepared to think critically about societal truths, human problems and conditions, and dynamic relationships. Students who take this course have the opportunity to earn college credit through the AP exam at the end of the year. **Students planning to attend a four-year college should enroll in this class.** [Course Essential Standards](#)

Film Analysis

Semester/1 elective credit (9-12)

Course number: 006

Prerequisite: None

This course will study the history, structure, production, and artistry of cinema. Students will watch, discuss, and write about important films and movements from the history of the 20th century - including silent film genre films, musicals, experimental films, political films, documentaries, television, and internet-based visual storytelling. [Course Essential Standards](#)

Yearbook

Year/2 elective credits (9-12)

Course number: 408

Prerequisite: Publications

This lab course offers the opportunity for students to be a part of the yearbook staff. In yearbook class students learn about journalistic rights and responsibilities, forms of journalistic writing, editing, interviewing, photography, and design skills. Class time will focus on production of the yearbook. Students must be able to attend extracurricular activities to take photos for the yearbook and conduct interviews of the student body. The yearbook staff works collaboratively to highlight events and moments from the school year including sports, academics, features, and other activities. Class time will focus on production of the yearbook. Students must be able to attend extracurricular activities routinely to take photos for the yearbook and meet deadlines on time. [Course Essential Standards](#)

Publications

Semester/1 elective credits (9-12)

Course number: 014S1

Prerequisites: None

Students that enroll in this class will learn important journalism skills in the areas of news writing, editing, photography, layout / design and other elements of production. Students will explore the ethics and history of journalism and practice communication/interview skills. Students will be prepared to take on the unique challenges of a high school newsroom that will prepare them for the production of either the yearbook or The Anchor. This class is a prerequisite and must be taken to join Yearbook and Publications. [Course Essential Standards](#)

Newspaper
Year/2 elective credits (9-12)

Course number: 328NWP
Prerequisites: Publications

This class produces the newspaper. In general instruction, students will learn journalistic rights and responsibilities, forms of journalistic writing, editing, interviewing, photography and design styles. Class time will focus on production of the newspaper, and students are required to attend extracurricular activities to take photos for the newspaper and conduct interviews.

Creative Writing (spring semester even years)
Sem. /1 elective credit (9-12)

Course number: 012
Prerequisites: None

This course is for the student who enjoys using his/her imagination through writing. The students will be expected to write extensively and a major part of the course will involve revision. The student will write a variety of short stories, plays, poems, and personal narratives. The mechanics of writing and vocabulary will also be reviewed. [Course Essential Standards](#)

Composition I - KCC
Sem. /1 credit (12)

Course number: 753
Prerequisites: Meets Kirkwood qualifying requirements

This will be offered at CCA for students who do not wish to attend the entirety of the Kirkwood Arts and Science Academy. College credit will be awarded for successful completion. This course is designed to help students:

- Improve critical reading, writing, and thinking skills
- Gain an understanding of the process of writing, including invention, thesis, rough drafts, final drafts, global revision, editing, and the importance of the writing community at various stages during the evolution of a composition
- Heighten awareness of audience and purpose through various types of writing assignments
- Increase ability to generate and develop effective supporting evidence
- Develop organizational skills in paragraphing and essay writing
- Recognize and apply language and style options, such as vocabulary word choice, figurative meaning, conciseness, emphasis, parallelism, and voice
- Improve command of standard English, including punctuation and grammar; and through these experiences, build confidence in writing ability. [Course Essential Standards](#)

Composition II - KCC
Sem. /1 credit (12)

Course number: 753S2

Prerequisites: Meets Kirkwood qualifying requirements

This will be offered at CCA for students who do not wish to attend the entirety of the Kirkwood Arts and Science Academy. College credit will be awarded for successful completion. To achieve the Course Objectives for Composition II, students will:

1. Locate, select, and evaluate appropriate sources and integrate information from sources into their writing or texts
2. Cite and document sources using the MLA or other parenthetical documentation format
3. Comprehend and analyze the arguments of others
4. Write logical arguments that state claims clearly and provide appropriate and sufficient reasons and evidence to support those claims
5. Continue to improve critical reading, writing, and thinking skills
6. Continue to gain an understanding of, engage in, the process of writing community at various stages during the evolution of composition
7. Continue to heighten awareness of audience and purpose through various types of writing assignments which may include summaries of analyses of readings, research papers, literary analysis, business letters, etc.
8. Continue to improve command of standard English, including punctuation and grammar
9. Through these experiences, continue to build confidence in writing ability.

[Course Essential Standards](#)



MATHEMATICS

9th Grade	10th Grade	11th Grade	12th Grade
*Algebra I	*Geometry *CORE Geometry	*Algebra II *CORE Algebra II *Statistics *Statistics II *Trigonometry Pre-Calculus	*Statistics *Statistics II *Trigonometry Pre-Calculus *AP Calculus AB

Non 4 year college bound/career ready sequence.

Math Skills

Year/2 credits (9-12)

Course number: 597

Must be approved for this course

Math Skills is a mathematics course designed to introduce topics that students will cover in an Algebra class. Students will also work on skills related to a wide variety of math topics including: problem solving, estimation, solving equations, number systems, ratios and proportions, graphing, and real world math concepts. This class utilizes online resources for math practice as well.

[Course Essential Standards](#)

CORE Geometry

Year/4 credits (2 math, 2 elective): (9-12)

Course number: 047

Prerequisites: Algebra I or Daily Algebra

Geometry Daily will meet every day. This course will help build and strengthen foundational math skills and cover the content found in geometry. This course encompasses standard geometric definitions and their applications, conjectures, constructions, measurements, congruence, angle relationships, circles, area, volume, similarity, Pythagorean Theorem, basic trigonometry, spatial relationships, proofs, and inductive/deductive reasoning. An investigative approach is used to discover the concepts related to geometry. Practical applications are incorporated in problem solving. [Course Essential Standards](#)

Core Algebra II

Year/2 credits (10-12)

Course number: 042

Prerequisites: Algebra I Daily, Geometry Daily, or Instructor Approval

This course is intended for those students in the daily math sequence. This is not intended for students planning on attending a 4 year college/university as it may not meet entrance requirement criteria. Core Algebra II begins with a logical development of Algebra I, broadening each topic as it is discussed. The course includes linear equations, systems of equations and inequalities, quadratic equations, functions, powers, roots, radicals, exponential functions, polynomials, and probability and statistics. This course is designed to expose students to the required algebra learning standards. [Course Essential Standards](#)
It is suggested that students purchase a Ti-84 Plus CE for this course.

College bound/career ready sequence.

Algebra I

Year/2 credits (9-12)

Course number: 039

Prerequisite: None

Algebra I is an introduction to the principles and techniques of modern algebra. It includes the study of the real numbers, equations, working with polynomials, factoring, inequalities, functions and relations, graphing, and quadratic equations. [Course Essential Standards](#)
It is suggested that students purchase a Ti-84 Plus CE for this course.

Geometry
Year/2 credits (9-12)

Course number: 040
Prerequisites: Algebra I or Algebra I Daily

This course encompasses standard geometric definitions and their applications, conjectures, constructions, measurements, congruence, angle relationships, circles, area, volume, similarity, Pythagorean Theorem, basic trigonometry, spatial relationships, proofs, and inductive/deductive reasoning. An investigative approach is used to discover the concepts related to geometry. Practical applications are incorporated in the problem solving. [Course Essential Standards](#)

Algebra II
Year/2 credits (10-12)

Course number: 041
Prerequisites: Algebra I, Geometry, or Geometry Daily
(Algebra II can be taken concurrently with Geometry with **instructor approval**)

Algebra II begins with a logical development of Algebra I, broadening each topic as it is discussed. The course includes linear equations, systems of equations and inequalities, quadratic equations, functions, powers, roots, radicals, exponential and logarithmic functions, polynomials, and trigonometry. Special topics may include rational functions, quadratic relations, sequences and series, probability and statistics. [Course Essential Standards](#)

Additional strongly encouraged college bound math course options

Statistics
Sem. /1 credit (11-12)

Course number: 419
Prerequisites: Geometry

Topics include number theory, use of hand-held calculators, data representation, counting problems, probability, and statistics. These concepts will be related to everyday demands in reading and understanding publications and interpreting statistics. [Course Essential Standards](#)

Statistics II
Sem. /1 credit (11-12)

Course number: 419S2
Prerequisites: Statistics

Statistics II is an extension of Statistics I. Topics include simulations, analysis of real world data, probability distributions, and confidence intervals. [Course Essential Standards](#)

Trigonometry Pre-Calculus
Year/2 credits (11-12)

Course number: 042
Prerequisites: Algebra I, Algebra II, and Geometry with a C average or better.

This course will expand concepts and skills developed in Algebra and Geometry, with the function as the unifying concept. Topics studied will include trigonometric functions, logarithms, exponents, conics, and polar coordinates. Graphing calculator encouraged (cost \$85-\$125). [Course Essential Standards](#)

AP Calculus AB
Year/2 Credits (12)

Course number: 043
Prerequisites: Algebra I and II, Geometry, Pre-Calculus with a grade of C or higher or instructor approval.

AP Calculus will cover material in a typical college Calculus class. Topics include: Prerequisites for college Calculus, Limits, Continuous Functions, Derivative and its many applications, and Integration. The class will address any misconceptions that students have about Mathematics. We will study and prepare for the AP Exam and completion of this test will be encouraged. Graphing Calculator encouraged (cost \$85-125). [Course Essential Standards](#)

Calculator recommendations to be successful in AP Calculus:

Ti-84 Plus CE (BEST)

Ti-84 Plus (GOOD)

Ti-Nspire CX CAS (GOOD, high learning curve)

Casio fx-9750GII (GOOD, complex since students are used to Texas Instruments)

AP Graphing Calculator Policy

MUSIC

9th Grade	10th Grade	11th Grade	12th Grade
*Concert Band/Marching Band	*Concert Band/Marching Band	*Concert Band/Marching Band	*Concert Band/Marching Band
*Unified Band	*Unified Band	*Unified Band	*Unified Band
*Voce	*Music Theory I	*Music Theory I	*Music Theory I
*Cantores	*Advanced Instrumental Techniques	*Music Theory II	*Music Theory II
*Lyrica	*Voce	*Advanced Instrumental Techniques	*Advanced Instrumental Techniques
	*Cantores	*Voce	*Voce
	*Lyrica	*Cantores	*Cantores
	*Musical Theatre	*Lyrica	*Lyrica
		*Musical Theatre	*Musical Theatre

Instrumental Music Offerings

Concert Band/Marching Band

Course number: 044

Year/2 credits (9-12) Prerequisite: Previous instrumental music experience or by audition with director.

Membership is open to all high school students who have previous experience in the Middle School Instrumental Music Program or by discretion of the director. The main emphasis is marching and concert band with other performance opportunities available. During the first quarter the Concert Band & Wind Ensemble will be combined to form the Clipper Marching Band. At the completion of the marching season students will be divided into two concert ensembles. Members of the band are required to attend five, 20-minute lessons per quarter, scheduled during the day, before school or afterschool. At certain times during the year, extra rehearsals will be needed before or after school. All students enrolled in Concert Band are required to be at all rehearsals and performances. [Course Essential Standards](#)

Music Theory I (10-12) one semester (1st semester only)

Course number: 056

Semester/1 credit

Prerequisite: None

Music Theory I is a one semester course designed to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. This course will seek to instill mastery of the rudiments and terminology of music including: notation, intervals, scales and keys, chords, metric organization and rhythmic patterns. [Course Essential Standards](#)

Music Theory II (10-12) one semester (2nd semester only)

Course number 056A

Semester/1 credit

Prerequisite: Music Theory I

Music Theory II is a one semester course designed to build on the skills learned in Music Theory I and progress to more creative tasks such as: form and structure of various repertoire analysis of chord structure, composition of melodies. Emphasis will be placed on functional harmony, tonal relationships, standard rhythms and meters, phrase structure, and small musical forms. Students will continually work to improve in areas of aural skills, sight-singing, composition and analysis. [Course Essential Standards](#)

Advanced Instrumental Techniques (10-12) one semester

Course number 048AIT

Semester/1 credit

Prerequisite: 1 year of High School Instrumental Music

Advanced Instrumental Techniques is a one semester course designed to develop a more in depth knowledge of a student's chosen instrument. Emphasis will be placed on instrument history, instrument maintenance, advanced solo preparation, and advanced musical studies for college prep. Students will learn to self evaluate their progress and will document their progress in both a journal and video format. [Course Essential Standards](#)

Vocal Music Offerings

Voce

Year/2 credits (9-12)

Course number: 046

Prerequisite: none

This class is for students who enjoy singing. Students in this ensemble will work on a variety of music throughout the year. The musical skills that will be worked on: proper breathing, vocal production, blend and balance, expansion of range, good intonation, and diction. Members of the choir are required to attend lessons throughout the school year. Scheduled performances throughout the school year is a requirement of the class.

[Course Essential Standards](#)

Cantores

Year/2 credits (9-12)

Course number: 046A

Prerequisite: Audition required

This class is advanced with an emphasis on excellent ensemble singing and individual vocal development. A wider variety of choral literature will be performed at a higher level. Members of the choir are required to attend lessons throughout the year. Scheduled performances and rehearsals throughout the school year is a requirement of the class. [Course Essential Standards](#)

Lyrca

Year/2 credits (9-12)

Course number: 046WC

This class will perform a variety of music and perform some pieces that are Acapella for 4 part Women's voices. This class will focus on blend, intonation, diction, dynamics, vocal tone and expression. Members of this choir are required to attend lessons throughout the year. Scheduled performances throughout the school year is a requirement of the class. [Course Essential Standards](#)

Musical Theatre (first semester only)

Sem. /1 elective credit (10-12)

Course number: 044

Prerequisites: Successful completion of English 9

Students will present songs and scenes from well-known musicals in class. Students will also learn how to improve their stage presence, singing skills, acting abilities and prepare for future auditions. Students will also read, watch and sing multiple styles and eras of musicals. [Course Essential Standards](#)

PHYSICAL EDUCATION

9th Grade	10th Grade	11th Grade	12th Grade
* Competition & Fitness	* Competition & Fitness	* Competition & Fitness	* Competition & Fitness
* Strength Training	* Strength Training	* Strength Training	* Strength Training
* Strength Training 9	* Personal Fitness	* Personal Fitness	* Personal Fitness
* Personal Fitness	* Unified PE	* Unified PE	* Unified PE
* Unified PE	* Cardio Fitness	* Cardio Fitness	* Cardio Fitness
* Cardio Fitness			

Physical education is an integral part of the total education process. The program aims to promote physical fitness, allow for individual differences in skills, assess physical progress, and help students develop mentally, emotionally, and socially through physical activity. All students at Clear Creek Amana must successfully complete 4 credits of Physical Education. Four credits, at least one per year, are required to graduate

Competition & Fitness

Sem. /1 credit (9-12)

Course number: 052

Prerequisite: None

General physical education offers team-oriented activities such as soccer, football, softball, basketball, hockey, handball volleyball; however, many other activities offered are lifetime sports. These sports are what will carry over to an individual's life after high school. These sports would include pickleball, speedminton, table tennis, and badminton. Participation is the essence of this education regarding the realm of sports and physical activity. Also included are some rhythmic activities of sports and specific fitness and conditioning activities that are very important for correct physical growth during these years. Heart rate monitors will be utilized every day in class to assess student performance. [Course Essential Standards](#)

Strength Training

Sem. /1 credit (10-12)

Course number: 053

Prerequisite: None

Strength Training will be offered for students who want to get better, faster, and stronger utilizing weight based resistance training. Students will receive instruction and coaching on weight lifting fundamentals and technique. Students will be assessed on their knowledge and technique of these weight lifting fundamentals. More complex skills and movements will be learned and implemented into workouts as students advance through the program. Daily video sessions of proper lifting form will be shown. Video will also be used to highlight student's lifting technique and possible improvements to be made. Specific workouts will be tailored for non-athletes and athletes alike. Students will have choices of a wide range of workouts. Mobility and flexibility work will be provided for all students as well. Athletic fitness and aerobic movements will be added when necessary. Extra options including prowler pushes, sled pulls, and band exercises will be provided for students who have multiple workouts in one day. [Course Essential Standards](#)

Strength Training 9

Sem. /1 credit (9)

Course number: 0539

Prerequisite: None

Strength Training 9 will be offered for freshmen students who want to get better, faster, and stronger utilizing weight based resistance training. This class emphasizes form and basic terminology used in the weight room. Students will receive instruction and coaching on weight lifting fundamentals and technique. Students will be assessed on their knowledge and technique of these weight lifting fundamentals. More complex skills and movements will be learned and implemented into workouts as students advance through the program. Daily video sessions of proper lifting form will be shown. Video will also be used to highlight student's lifting technique and possible improvements to be made. Specific workouts will be tailored for non-athletes and athletes alike. Students will have choices of a wide range of workouts. Mobility and flexibility work will be provided for all students as well. Athletic fitness and aerobic movements will be added when necessary. Extra options including prowler pushes, sled pulls, and band exercises will be provided for students who have multiple workouts in one day. [Course Essential Standards](#)

Personal Fitness

Sem. /1 credit (9-12)

Course number: 054

Prerequisite: None

The objective of the course is to provide a variety of high intensity training workouts to give students the tools and skills to be physically active for a lifetime. This class will feature current fitness based trends such as various resistance training including bands, exercise balls, body-weight exercises, aerobics, kickboxing. Workouts will be structured on a rotation to provide workouts for all fitness components. Students taking this class should be serious about their personal fitness, be self motivated and be willing to workout for a large portion of each block. Heart rate monitors will be utilized every day in class to assess student performance. [Course Essential Standards](#)

Unified PE

Sem. / 1 credit (9-12)

Course Number: 055

Prerequisite: None

Unified PE will be an inclusive course in which it will be offered for students who are unable to participate in regular physical education and/or could benefit from an accommodated physical education environment, AND students able to participate in a regular physical education course. This class will teach skills to help every student enrolled in the course. Students will have the opportunity to participate in new social environments and model different skills for their peers. Class activities will be adapted or modified to meet the individual needs of every student. [Course Essential Standards](#)

Cardio Fitness

Sem. /1 credit (9-12)

Course number: 02014

Prerequisite: None

The objective of cardio fitness is to provide a cardio based only PE class. Students will be exposed to different cardio and aerobic based exercises emphasizing increased and sustained heart rates along with increased oxygen intake while exercising. Students will utilize the fitness room and track facilities along with other available equipment to help meet the class goals. Students should be self motivated and be willing to do only cardio activities for the PE block. Heart rate monitors will be utilized every day in class to assess student performance. [Course Essential Standards](#)

HEALTH

Health

Year/2 credits (10)

Course number: 051

Prerequisite: Required sophomore year

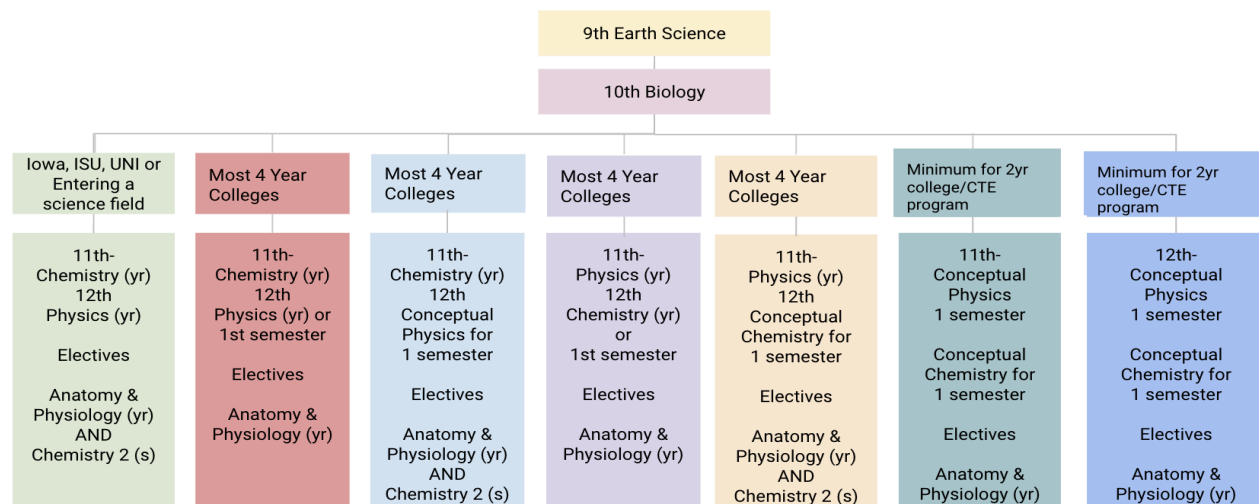
Students will learn to recognize health from a wellness approach that affects the whole person throughout their lives. Topics to be discussed will be family and social health; substance abuse; nutrition and physical health; safety and first aid; teenage sexuality, including sexually transmitted diseases; HIV and decision making skills. Part of the curriculum will include CPR training by an approved CPR instructor.

[Course Essential Standards](#)

SCIENCE

9th Grade	10th Grade	11th Grade	12th Grade
*Earth Science	*Biology	*Chemistry *Physics *Conceptual Chemistry *Conceptual Physics *Human Anatomy & Physiology *AP Biology	*Chemistry *Physics *Conceptual Chemistry *Conceptual Physics *Human Anatomy & Physiology *AP Biology

Science Sequences



Earth Science
Year/2 credits (9)

Course Number: 067
Prerequisites: Required freshman year

Earth Science is the study of current and historical scientific processes in, on, and around the Earth. Topics investigated will include (but are not limited to) hydrosphere, global climate, solar system origins, geology, geochemical cycles, and weather. The emphasis of the course is for the students to experience science through activities and labs, use technology and understand how earth science is relevant to their everyday lives. Grades will be based on labs, projects, notebooks, and tests. This course is a graduation requirement.

[Course Essential Standards](#)

Biology
Year/2 credits (10)

Course number: 061
Prerequisites: Required sophomore year

Biology is the study of all living things and how they interact with each other. Topics include sustainability, ecology, cell biology, genetics, evolution and classification. This is a problem-based learning curriculum. Lab experiences will be included throughout the year to make the material more meaningful. This course is a graduation requirement. [Course Essential Standards](#)

Conceptual Chemistry
Semester/1 credit (11-12)

Course number: 060S1
Prerequisite: Algebra I

This class is designed to introduce students to chemical principles through observation, research, and investigation. Students will study atomic structure, elements, bonding, and chemical reactions. The problem solving skills of questioning, analyzing data, and drawing conclusions will be emphasized. Activities in the course will be related to job-specific skills for the health, food, and environmental industries. This course is an option to fulfill the graduation requirement for chemistry. [Course Essential Standards](#)

Conceptual Physics
Semester/1 credit (11-12)

Course number: 060S2
Prerequisite: Algebra I

This course focuses on the basics of physics. In this course, we will dive into motion and forces, energy, and waves. We will learn to read and effectively use graphs and equations to solve problems. We will be engaging in several project based activities to connect physics content with the real world. This course is an option to fulfill the graduation requirement for physics. [Course Essential Standards](#)

Chemistry (11-12)
Year/2 credits

Course number: 062
Prerequisites: Algebra
Recommended: Geometry or currently enrolled

This year-long course is required for the majority of college-bound students with a STEM goal (IT, health, engineering, environmental...). Students taking chemistry are expected to have good writing and algebra skills as well as a good work ethic. Chemistry provides a comprehensive exploration of the periodic table, atomic structure, chemical bonding, reactions, and other properties of matter. Emphasizing hands-on experimentation, safety, and formal reporting, students will engage with density, thermodynamics, equilibrium, acids, and bases.

This class cultivates foundational chemical knowledge, critical thinking, and collaborative skills, fostering an appreciation for the role of chemistry in daily life, and future STEM pursuits.

[Course Essential Standards](#)

Physics

Year/2 credits (11-12)

Course number: 063

Prerequisites: Algebra II or instructor's approval

Recommended: Trigonometry

This course is laboratory based and recommended for college-bound students or for those students who enjoy science and meet the prerequisite requirements. Data interpretation and problem solving skills are emphasized. Approximately 35% of class time is devoted to laboratory investigations. Topics covered include: vectors, motion, mechanics, physical laws, projectile motion, momentum, energy transfer, electricity, wave properties, nuclear energy etc. Participation in regional Physics Competition will also be a part of the curriculum. [Course Essential Standards](#)

Anatomy & Physiology

Year/2 credits (11-12)

Course number: 064

Prerequisites: Biology (>85% or teacher recommendation)

This course is recommended for college-bound students and those with an interest in the life sciences. If you are interested in any field or subfield of medicine, such as nursing, physician's assistant, pharmacology, physical therapy, athletic or personal training, nutritionist, psychology, vet, or medical doctor, this course is *highly* suggested as it will be a great introduction to the human body and its complex systems.

Course Description:

In Biology, cells were the main focus of study. You learned about what cells were, how they differed, and their basic structure and function. In Anatomy & Physiology, we will be expanding on your knowledge of life, by focusing on the amazing, but very complex human body. In this course students will pursue a more in-depth study of the human body, its structure and function of its organ systems, and human disease. The body's ability to maintain 'good health,' is dependent upon its ability to maintain proper structure and function, even under unfavorable conditions. We will conquer this task by first learning about the basic structure of the body and how it is organized. This course will provide opportunities to also study several dissections including a cat, an eyeball, a heart, and a brain, in which to compare to the human body. The major units covered in this course include the following: Introduction to the Human Body, Tissues, Integumentary System, Skeletal System, Nervous System, Muscular System, Circulatory System (Cardiovascular, Respiratory, and Immune Systems), Digestive and Urinary System, Endocrine System, and Reproductive System. [Course Essential Standards](#)

AP Biology

Year/2 credits (11-12)

Course Number: 116

Prerequisites: Biology (>85%), Chemistry I
(This course is offered if numbers are warranted)

The AP Biology course is designed to be the equivalent of a college introductory biology course usually taken by freshman biology majors. However, it is not a course reserved for those interested in science; if a student knows that he or she does NOT want to go into science but would like to get some of their college science requirements complete, this would be a great course to take.

AP Biology is for students who are interested in ANY field or subfield of science such as; medical doctor, chemist, physician's assistant, geology, biomedical engineering, physical therapy, botany, horticulture, Earth science,

animal science, conservation, athletic or personal training, nutritionist, agriculture, veterinary science, psychology, science education, nursing, etc.

Course Description:

The college course in biology differs significantly from the usual first high school course in biology with respect to the kind of textbook used, the range and depth of topics covered, the kind of laboratory work done by students, and the time and effort required of students, and is therefore designed to be taken by students after the successful completion of a first course in high school biology. The two main goals of AP Biology are to help students develop a conceptual framework for modern biology and to help students gain an appreciation of science as a process.

There will be four big ideas studied throughout the course of the year:

Big Idea 1: The process of evolution drives the diversity and unity of life.

Big Idea 2: Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis.

Big Idea 3: Living systems store, retrieve, transmit and respond to information essential to life processes.

Big Idea 4: Biological systems interact, and these systems and their interactions possess complex properties.

[Course Essential Standards](#)

SOCIAL STUDIES

9th Grade	10th Grade	11th Grade	12th Grade
<p>*Survey of Social Studies</p>	<p>*Economics</p> <p>*Eastern Cultures</p> <p>*Modern Political Controversies</p> <p>*Contemporary U.S. History</p> <p>*Street Law</p>	<p>*American History</p> <p>*Economics</p> <p>*Eastern Cultures</p> <p>*Modern Political Controversies</p> <p>*Contemporary U.S. History</p> <p>*Intro to Sociology</p> <p>*Intro to Psychology</p> <p>*AP US History</p> <p>*Street Law</p>	<p>*American Government</p> <p>*Economics</p> <p>*Eastern Cultures</p> <p>*Modern Political Controversies</p> <p>*Contemporary U.S. History</p> <p>*Intro to Sociology</p> <p>*Intro to Psychology</p> <p>*AP US History</p> <p>*Street Law</p>

Social Studies Survey

Year/2 credits

Course number: 072

Prerequisite: Required freshman year

This one-year course focuses on three areas of social studies: world geography, world history and anthropology. The world geography portion will examine the physical and human world within global and regional contexts using the five themes of geography and the six elements of culture, and current events. After students are introduced to the aforementioned topics, they will apply them to world history and anthropology. Further exploring our history and how it evolved into the society it is today by looking at past governments, peoples, cultures, and other significant events which have occurred over time. [Course Essential Standards](#)

Introduction to Sociology
Sem. /1 credit (11-12)

Course number: 258
Prerequisites: None

The goal of this course is to introduce students to Sociology—the study of human relationships. Students will not only learn the basic principles, concepts, and theories that constitute the core study of Sociology, but will also be given the knowledge to better understand society. Students will be able to see the world through the eyes of others and draw connections between what they are studying in class and the events that are taking place throughout the world today. The primary measures for learning and understanding will be through the completion of daily assignments and activities, class discussions, external research, composition papers and a comprehensive final activity. *This is an upper level elective. ONLY Jr/Sr students should be signed up for this course.* [Course Essential Standards](#)

American History
Year/2 credits

Course number: 073
Prerequisite: Required Junior year

The course over U.S. History will begin with westward expansion across the Mississippi River by the non-native people. The course will proceed on a chronological basis up to the present. Major topics covered will include: Industrialization, the Spanish-American War, U.S. involvement in World War I, the Depression, the New Deal, World War II, The Cold War, and the Vietnam War. These topics will be studied in the context of how these events affect us today. Required for graduation. [Course Essential Standards](#)

AP U.S. History
Year/2 credits (11-12 [Alternative to US History])

Course numbers: 261
(This course is offered if numbers are warranted)

AP U.S. History is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with problems and materials in U.S. History. It is a challenging curriculum that is meant to be the equivalent of a freshman college course and can earn students college credit. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Solid reading and writing skills, along with a willingness to devote considerable time to homework and study, are necessary to succeed. Emphasis is placed on critical and evaluative thinking skills, essay writing, and interpretation of original documents. The purpose of this course is to acquire a thorough understanding of United States history. Also, this course is intended to prepare students for the AP U.S. History Exam to be taken in the spring semester. Finally, this course may be used to gain college level credits or simply to ensure preparedness for the college experience. [Course Essential Standards](#)

Introduction to Psychology
Sem. /1 credit (11-12)

Course number: 074
Prerequisite: None

Introduction to Psychology is a survey course that explores several levels of psychology at an introductory level. Students in this class will examine the biological basis of behavior, sensation and perception, states of consciousness, learning, memory, cognition, intelligence, motivation and emotion, child development, adolescence and adulthood, personality and assessment, stress and health psychology, psychological disorders, approaches to treatment, social psychology, and applied psychology. This course will utilize films, discussions, research, creation of APA composition papers and text readings to build a solid base for the understanding of basic and applied psychology. *This is an upper level elective. ONLY Jr/Sr students should be signed up for this course.* [Course Essential Standard](#)

Economics

Sem. /1 credit (10-12)

Course number: 305

Prerequisite: None

Economics provides students with an overview of economic principles and the opportunity to analyze current economic events locally, nationally and globally. This course will begin with an overview of the most fundamental economic concepts and progress into more complex themes such as supply side economics, progressive v. flat taxes, free trade v. protectionism and the regulation and deregulation of business. As this course proceeds, students will develop their financial literacy skills so they can have the opportunity to make wise economic choices later on in life. [Course Essential Standards](#)

Eastern Cultures

Sem. /1 credit (10-12)

Course number: 078

Prerequisite: Survey of Social Studies

Eastern Cultures is a project-based course in which students are guided through an overview of cultures in the East using the Seven Elements of Culture: Social Organization, Customs and Traditions, Language, Arts & Literature, Religion, Forms of Government, and Economic Systems. In addition, a large part of this class is understanding and practicing Mindfulness and studying its link to Eastern thought. Each class period will begin with Mindfulness and students will be required to log their experience. We will also read a novel which represents aspects of the Seven Elements of Culture and Mindfulness. Lastly, the class requires participation and discussion in each of these aforementioned activities. [Course Essential Standards](#)

Modern Political Controversies

Sem./1 credit (10-12)

Course Number: 076

Prerequisite: Survey of Social Studies

This course covers controversial subjects facing America and the world. Emphasis will be on the student's ability to explore, investigate, discuss, debate and critically think through these issues in a civil manner. Issues that will include: Death Penalty, Abortion, Health Care, Drug Legalization, Gun Control, Police Conduct, Race Relations, and possible breaking news topics. This course will use a variety of publications, websites, and possible guest speakers that will cover the entire political spectrum. Assignments will consist of written and oral reports, as well as formal debates on the various topics. Practicing civil discourse and being able to discuss issues with others with which you disagree is essential to a well functioning society. [Course Essential Standards](#)

Contemporary U.S. History

Sem. /1 credit (10-12)

Course number: 03003

Prerequisite: Survey of Social Studies

Contemporary U.S. History begins with the presidency of Richard Nixon and proceeds on a chronological basis through the end of the presidency of Donald Trump. Major topics covered will include: the Economic Crisis of 1973, Roe v. Wade, Watergate, War on Drugs, Aids, Iran-Contra, Cold War, First Gulf War, the Internet, NAFTA, 1994 Crime Bill, Welfare Reform, 2000 Election, Sept. 11, 2001, Iraq War, War on Terror, Great Recession, LGBTQ Rights, Obamacare, Climate Change, and the 2020 Election. These topics will be studied in the context of how these events affect us today. *This course is NOT a substitute for American History, it is an elective that can be taken by anyone who is interested in contemporary history events.*

[Course Essential Standards](#)

Street Law
Sem/1 credit

Course numbers: 262
Prerequisite: Survey of Social Studies

Street Law provides you with an opportunity to learn about and study practical legal information that is relevant to your life. The course will include case studies, examining evidence, and court cases that have a real-world impact on your life. Students will be able to engage in a mock trial study that will put them through the various components of a trial. The course will help develop high-level critical thinking and problem-solving skills while developing communication. [Course Essential Standards](#)

American Government
Sem. /1 credit (12)

Course number: 077
Prerequisite: Required Senior year

In this course, students will be introduced to local, state, national and international governments with the primary focus being our federal government structure and function. Students will learn how to get more involved with their community and meet government officials as guest speakers. Current issues will be addressed daily as students will enhance critical thinking skills and knowledge of world events. Students will have the opportunity to attend meetings of elected officials as well as learn how to/register to vote. The primary measures for learning and understanding will be through the completion of daily assignments and activities, class discussions/debates, external research, a major exam (incorporating the US Constitution, the Iowa Constitution, elected officials and general US/Iowa knowledge) and a comprehensive final activity. Passage required for graduation. [Course Essential Standards](#)

WORLD LANGUAGES

9th Grade	10th Grade	11th Grade	12th Grade
*German I *Spanish I	*German II *Spanish II	*German III *Spanish III	*German IV *Spanish IV

While the study of a foreign language is not required for high school graduation, it is highly recommended. Foreign language college requirements change frequently, however many colleges require a minimum of 2 years to enroll and 4 years to graduate.

German I

Year/2 credits (9-12)

Course number: 085

Recommendation: C or higher in English

This course provides the basic foundation of language learning in the four areas of listening comprehension, speaking, reading, and writing. Emphasis is placed on communication, and the necessary tools, namely grammar, are provided to help the student learn to use the language. Language is taught through a variety of everyday situations and within the context of the culture of German-speaking countries. Areas of study include: greetings and conversation, interests, time, colors, numbers, family, home, school activities, friends, cultural items, geography, everyday German life, German songs, 300 idiomatic phrases, pronunciation, and grammatical structures. [Course Essential Standards](#)

German II

Year/2 credits (10-11)

Course number: 086

Prerequisite: German I

This course expands students' knowledge of the German language and their understanding of the culture. Great emphasis is placed on communication, and the necessary tools, namely grammar, expanded upon to help the student learn to use the language. A variety of everyday situations let the student practice these new skills. Class work includes grammar drills and practice, listening comprehension exercises, large and small group discussions, and numerous partner activities. Areas of study include: clothing, fashion, making plans, shopping, home, weather, travel, geography of German-speaking countries, cultural items, short stories and beginning literature selections, idiomatic phrases, and grammatical structures. [Course Essential Standards](#)

German III

Year/2 credits (11-12)

Course number: 087

Prerequisite: German II

This course continues the students' knowledge of the German language and their understanding of the culture. Great emphasis is placed on communication, and the necessary tools, namely grammar, expanded upon to help the student learn to use the language. A variety of everyday situations let the student practice these new skills. Class work includes grammar drills and practice, listening comprehension exercises, large and small group discussions, and numerous partner activities. Areas of study include: interests in music and movies, holidays and festivals, health and wellbeing, geography of German-speaking countries, cultural items, short stories and beginning literature selections, idiomatic phrases, and grammatical structures.

[Course Essential Standards](#)**German IV**

Year/2 credits (12)

Course number: 088

Prerequisite: German III

The course includes a review of basic written and spoken German grammar and the application of this knowledge through study of the culture of German-speaking countries. The main emphasis of German IV is oral comprehension. Stories and modern day concerns are discussed in the German tongue. The increased usage of the German language is stressed as the year progresses. The possession of a German/English dictionary is highly recommended. The areas of study include: review of five verb tenses; adjective endings; review of four cases; comparison of adjectives and adverbs; relative pronouns and clauses; genitive case, active and passive voice; famous German personalities; student video productions; health and wellbeing; city and country life; travel; composers and writers; festivals and food; proverbs, short stories, mystery stories; and idiomatic phrases. [Course Essential Standard](#)

Spanish I

Course number: 081

Year/2 credits (9-12)

Recommendation: C average or higher in English

Spanish I is open to any motivated student who is eager to speak, read, write, and understand the language and culture of the Spanish-speaking world. It is designed to be a challenging course and requires daily assignments in order to acquire an acceptable level of language proficiency. Students are expected to study vocabulary daily as well as be ready for frequent quizzes to master spelling. Students will also be expected to actively participate in listening, reading, writing, and speaking activities. [Course Essential Standards](#)

Spanish II

Year/2 credits (10-12)

Course number: 082

Prerequisite: Spanish I

Spanish II may be taken by any student who has successfully completed Spanish I. Students increase their written and oral fluency and continue their study of Hispanic cultures. Emphasis will be on communication and pronunciation while using added tenses and vocabulary. Active participation, completed daily assignments, and frequent studying are expected. [Course Essential Standards](#)

Spanish III

Year/2 credits (11-12)

Course number: 083

Prerequisites: Spanish I and II

Successful completion of both Spanish I and II is required for Spanish III. Emphasis is placed on speaking the language while mastering new vocabulary and verb tenses. The class is conducted primarily in Spanish and the speaking of Spanish will be graded on a daily basis. Students will continue to improve their writing, reading, listening, and speaking while furthering their study of grammar, vocabulary, and culture. [Course Essential Standards](#)

Spanish IV

Year/2 credits (12)

Course number: 084

Prerequisites: Spanish I, II, and III

Successful completion of Spanish I, II, & III is required for Spanish IV. This course contains all of the elements of Spanish III with an increased emphasis on speaking, writing, and becoming more proficient in Spanish. Students will give oral presentations and write original stories and essays while using advanced grammar and vocabulary. [Course Essential Standards](#)

Post-Secondary Enrollment Option Act & Senior Year Plus

Students in grades nine and ten who have been identified for CCA's Extended Learning Program may apply to take college course work during the school day, if said course is NOT offered through the high school curriculum. Students in grades eleven and twelve are eligible to take courses under the post secondary enrollment option act as long as they meet the requirements of the Senior Year Plus legislation. This legislation is outlined briefly below. Tuition is paid by the school district. Transportation costs, books, and incidental fees must be paid by the student. Should a student fail or drop a college course after the college's set deadline, the entire tuition cost will then be paid by the student.

The Senior Year Plus legislation was enacted to provide increased access to college credit courses for high school students. These courses provide students the opportunity to take a rigorous college curriculum and receive, in many cases, both high school and college credit concurrently. At Clear Creek Amana High School joint-enrolled courses include:

- Career Academy Courses (with the exception of CTE courses)
- Post-Secondary Enrollment Options Act courses-(PSEO)

Kirkwood Opportunities

Kirkwood College Credit in High School

Kirkwood offers opportunities for students to earn college credit while in high school at no cost to families. These courses are the perfect opportunity for students to get hands-on experience while gaining exposure to careers they want to pursue after graduation. All of the classes students take at Kirkwood are for both high school and college credit.

Students can earn college credit in high school through Kirkwood in a variety of ways. Options range from taking a class or two for transfer credit (within the walls of their high school, online or face-to-face at a Kirkwood location) to completing a sequence of courses in a Career Academy. Career Academies are packaged courses, offered at Regional Center locations, which focus on career exploration while also aligning with industry workforce needs. Students work through their high school counseling office or local Kirkwood Student Academic and Support Coordinator to find out what courses would be best for them and learn more about Career Academy offerings available.

The following links will provide information on incredible opportunities through Kirkwood Community College. Please know that any class offered through Kirkwood or the University of Iowa that receives a letter grade will be included and part of a student's GPA calculation. **Students will not be allowed to miss regular meeting time of their CCAHS classes to attend a college level course.**

<http://www.kirkwood.edu/johnsonacademies>

Kirkwood Regional Center Academy Options 2024-2025

Students in grades 9-12 have the opportunity to take some AP courses or PSEO/Alternative Concurrent class options. We do not recommend students in grades 9 & 10 choose this option. If a student in grades 9-11 wants to take advantage of these opportunities they will be in addition to their 8 classes at CCAHS. The classes will have to be offered at night or online.

Regent Admissions Index **(Used for Univ of Iowa, UNI, Iowa State)**

RAI Formula

ACT composite score x 3

+ Cumulative GPA x 30

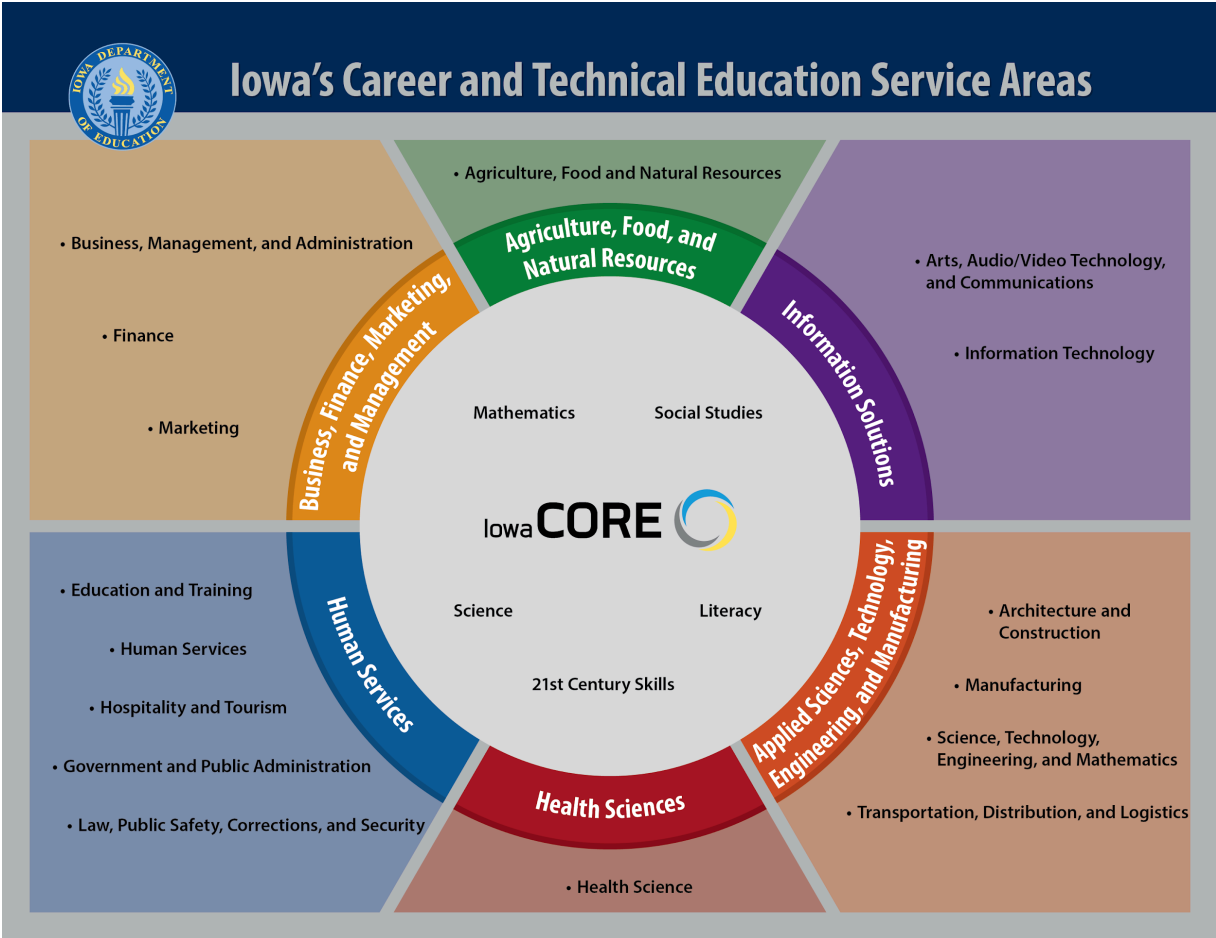
+ Number of years of high school core courses x 5

RAI score

Iowa resident students who achieve at least a 245 RAI score and who meet the minimum high school course requirements are automatically offered admission to any of the three Regent universities. Students who achieve less than a 245 RAI score and who meet the minimum high school course requirements will continue to receive individual review from the Regent university to which they applied.

During this transition period, the Regent universities will give special consideration to any applicants who may be disadvantaged by this change.

Career Pathways





Agriculture, Food & Natural Resources

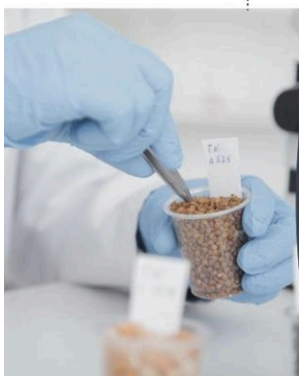
Kirkwood Diploma	Sample Career	Salaries
Agriculture Production	Seed Production	\$35,000
Pet Grooming	Pet Groomer	\$27,000
Golf Course and Athletic Turfgrass Management	Grounds Maintenance	\$37,500
Veterinary Assistant	Vet Assistant	\$24,000
Animal Control Assistant	Animal Care Assistant	\$24,500
Landscape Construction and Design	Landscape Worker	\$27,700
Water Environmental Technology	Environmental Technician	\$31,000
Water Treatment Specialist	Water Treatment Specialist	\$31,000
Wastewater Specialist	Wastewater Operator	\$39,000

Kirkwood Certificates	Sample Career	Salaries
Agricultural Geospatial Technology	Farm Machinery Operator	\$35,200
Small Scale Food Production	Farm Laborer	\$27,700

Kirkwood Career Academies	Sample Career	Salaries
Agriculture Sciences	Field Technician	\$26,400
Water Environmental Technology	Water Operator	\$24,950



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Introduction to Agriculture, Food, and Natural Resources (AFNR)
- Principles of Agricultural Science-Animal
- Principles of Agricultural Science-Plant
- Food Science and Safety
- Intro to Business
- Biology
- Intro to Foods
- Advanced Foods
- Culinary Arts
- Restaurant Operations 101

High School Related Activities and Clubs

- Internships
- Job Shadows
- FFA
- 4H



Agriculture, Food & Natural Resources

Kirkwood Diploma	Sample Career	Salaries
Agriculture Production	Seed Production	\$35,000
Pet Grooming	Pet Groomer	\$27,000
Golf Course and Athletic Turfgrass Management	Grounds Maintenance	\$37,500
Veterinary Assistant	Vet Assistant	\$24,000
Animal Control Assistant	Animal Care Assistant	\$24,500
Landscape Construction and Design	Landscape Worker	\$27,700
Water Environmental Technology	Environmental Technician	\$31,000
Water Treatment Specialist	Water Treatment Specialist	\$31,000
Wastewater Specialist	Wastewater Operator	\$39,000
Kirkwood Certificates	Sample Career	Salaries
Agricultural Geospatial Technology	Farm Machinery Operator	\$35,200
Small Scale Food Production	Farm Laborer	\$27,700
Kirkwood Career Academies	Sample Career	Salaries
Agriculture Sciences	Field Technician	\$26,400
Water Environmental Technology	Water Operator	\$24,950



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data--Nov. 2018



High School Courses

- Introduction to Agriculture, Food, and Natural Resources (AFNR)
- Principles of Agricultural Science-Animal
- Principles of Agricultural Science-Plant
- Food Science and Safety
- Intro to Business
- Biology
- Intro to Foods
- Advanced Foods
- Culinary Arts
- Restaurant Operations 101

High School Related Activities and Clubs

- Internships
- Job Shadows
- FFA
- 4-H



Architecture & Construction

- ▶ CONSTRUCTION
- ▶ DESIGN/PRE-CONSTRUCTION
- ▶ MAINTENANCE/OPERATIONS

A career in architecture and construction requires certain skills and education depending on job requirements. Skills include designing, planning, managing, building, and maintaining the built environment.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Architecture	Architect	\$83,750
Civil Engineering	Civil Engineer	\$81,850
Industrial Design	Electronic Engineer	\$69,800
Industrial Engineer	Industrial Engineer	\$78,950
Construction Management	Construction and Building Inspector	\$62,130

**Additional Bachelor's Degrees include: Art & Design, Community & Regional Planning, Construction Engineering, Construction Management, Forestry, Graphic Design, Industrial Engineering, Industrial Technology, Interdisciplinary Design, Interior Design, Landscape Architecture, Materials Engineering*

Kirkwood Associate's Degree	Sample Career	Salaries
Architecture Technology	Architectural Drafter	\$50,900
CAD/Mechanical Engineering Technology	CAD Drafter	\$54,900
Construction Management	First Line Supervisor	\$61,200
Interior Design	Interior Designer	\$40,000

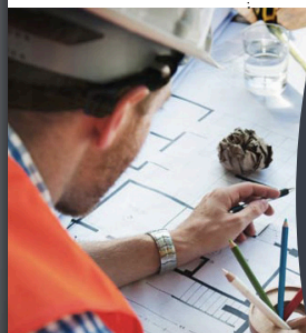
Kirkwood Diploma	Sample Career	Salaries
CAD/Mechanical Engineering Technology	Mechanical Engineering Technician	\$49,900
Carpentry	Carpenter	\$42,900
HVAC Installer	HVAC Installer	\$50,500
Plumbing Pre-Apprenticeship	Plumber (If followed by an apprenticeship)	\$50,200

Kirkwood Certificates	Sample Career	Salaries
Construction Estimator	Estimator	\$35,000
Construction Supervision Certificate	Construction Coordinator	\$50,950

Kirkwood Career Academies	Sample Career	Salaries
ACE: Construction Trades (Pre-Apprenticeship)	Entry Level Construction Laborer	\$37,050
ACE: Architectural and Engineering Design (Pre-Apprenticeship)	Design Assistant	\$30,100



**Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018*



High School Courses

Introduction to Architecture, Construction & Engineering
 Mechanical Drafting
 Construction Material Processing
 Metal Manufacturing
 Construction Technology
 Introduction to Engineering Design (IED)
 Principles of Engineering (POE)
 Digital Electronics (DE)

Civil Engineering and Architecture
 Chemistry I
 Physics I
 Physical Science Chemistry
 Physical Science Physics
 Human Anatomy & Physiology
 Biology
 AP Biology
 Chemistry II
 World Language

Intro to Computer Science
 Graphic Design
 Computer Science Engineering
 Computer Basics Applications
 Algebra I
 Geometry
 Algebra II
 Statistics I & II
 Trigonometry/Pre Calculus
 AP Calculus

High School Related Activities and Clubs

Internships
 Job Shadows



Arts, A/V Technology & Communications

- ▶ A/V TECHNOLOGY & FILM
- ▶ JOURNALISM & BROADCASTING
- ▶ PERFORMING ARTS
- ▶ PRINTING TECHNOLOGY
- ▶ TELECOMMUNICATIONS
- ▶ VISUAL ARTS

A career in arts, audio/visual technology and communications requires certain skills and education depending on job requirements. Skills include designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Broadcasting	News Anchor	\$50,850
English	Technical Writer	\$54,650
Theater	Theatre Actor	\$50,900
Kirkwood Associate's Degree	Sample Career	Salaries
Graphic Communication Technology	Graphic Designer	\$45,700
Interior Design	Interior Designer	\$40,000
Web Technologies	Desktop Publisher	\$41,500
Kirkwood Career Academies	Sample Career	Salaries
Arts and Sciences Academy	Camera Operator	\$32,450
Graphic Communication Technology Academy	Merchandise Displayer	\$28,800
Kirkwood Certificates	Sample Career	Salaries
Social Media Marketing	Media Technician	\$34,400
Web Development	Website Developer	\$58,000
Web Design	Website Designer	\$47,700



*Information provided by Emisi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Glassworks
- Glassworks II
- Drawing I & II
- Painting I & II
- Ceramics I & II
- Mixed Media
- Graphic Design
- Photography Black and White
- Photography Digital
- Advanced Art
- Band
- Choir
- Theater
- Film Analysis
- Creative Writing
- Yearbook
- Newspaper
- Intro to Journalism
- Interior Design
- World Language

High School Related Activities and Clubs

- Internships
- Job Shadows
- Art Club
- School Play/Musical
- Debate Club
- Speech Club
- Newspaper
- Yearbook
- Jazz Band
- Pep Band
- Show Choir



Business Management & Administration

- ▶ ADMINISTRATIVE SUPPORT
- ▶ BUSINESS INFORMATION MANAGEMENT
- ▶ GENERAL MANAGEMENT
- ▶ HUMAN RESOURCES MANAGEMENT
- ▶ OPERATIONS MANAGEMENT

A career in business management and administration requires certain skills and education depending on job requirements. Skills include planning, organizing, directing, and evaluating business functions essential to productive business operations.

Advanced Degree	Sample Career	Salaries
Master's Degree in Business Administration (MBA)	Executive Manager/CEO	\$179,500

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Business	Operations Manager	\$96,750
Business Administration	Administrative Services Manager	\$88,600
Business Information Systems	Business Analytics & Info Systems	\$122,250
Business Management	Compensation & Benefits Manager	\$106,200
Human Resources	Human Resource Manager	\$102,950

**Additional Bachelor's Degrees include: Business Teaching, Entrepreneurship, International Business*

Kirkwood Associate's Degree	Sample Career	Salaries
Business Administration: Accounting	Accounting Clerk	\$37,400
Business Administration: Financial Services	Credit Counselor	\$40,200
Business Administration: Management	Community Service Manager	\$58,300
Administrative Management	Executive Assistant	\$48,700
Health Information Technology	HIT Technician	\$40,500
Business Administration w/ Transfer Option		

Kirkwood Diploma	Sample Career	Salaries
Office Assistant	Office Clerk	\$34,300
Medical Coding	Medical Secretary	\$35,200
Medical Transcription	Medical Transcriptionist	\$34,700

Kirkwood Certificates	Sample Career	Salaries
Technical Accounting	Bookkeeper	\$37,400
Global Perspectives in Business	Shipping, Receiving, and Traffic Clerks	\$34,600
Entrepreneurship	Business Continuity Planner	\$63,000
Human Resources	HR Assistant	\$39,200
Project Management	Project Manager	\$51,100
Medical Transcription	Medical Transcriptionist	\$28,900

Kirkwood Career Academies	Sample Career	Salaries
Pre-Business Administration	Receptionist	\$28,400
Arts and Sciences	Mail Clerk	\$29,100



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- | | |
|------------------------------|------------------------------|
| Intro to Business | Business Law |
| Computer Basics Applications | Entrepreneurship |
| Sports & Entertainment | Personal Finance |
| Marketing | World Language |
| Accounting I | Elementary Statistics I & II |
| Accounting II | |

High School Related Activities and Clubs

- Internships
- Job Shadows



Education and Training

- ▶ ADMINISTRATION & ADMINISTRATIVE SUPPORT
- ▶ PROFESSIONAL SUPPORT SERVICES
- ▶ TEACHING/TRAINING

A career in education and training requires certain skills and education depending on job requirements. Skills include planning, managing, and providing education and training service, and related learning support services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Elementary Education	Elementary Special Education Teacher	\$56,350
Secondary Education	High School Teacher	\$54,450
Organizational Leadership	Training Manager	\$87,250
<i>*Additional Bachelor's Degrees include: Athletic Training</i>		
Kirkwood Associate's Degree	Sample Career	Salaries
Early Childhood Education	Childcare Administrator	\$41,600
Exercise Science and Wellness	Fitness Trainer	\$32,800
Liberal Arts – Education w/ Transfer Option		
Kirkwood Diploma	Sample Career	Salaries
Early Childhood Education	Preschool Teacher	\$25,800
Kirkwood Career Academies	Sample Career	Salaries
Pre-Education Transfer	Teacher Assistant	\$24,400
Arts and Science Academy	Childcare Worker	\$20,500
Kirkwood Certificates	Sample Career	Salaries
Early Childhood Paraeducator	Paraeducator	\$24,900



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data—Nov. 2018



High School Courses

- Child Development
- Psychology
- Sociology
- Parenting
- Health
- World Language

High School Related Activities and Clubs

- Internships
- Job Shadows
- Athletic Team Manager
- Elementary Mentoring

Finance

- ▶ ACCOUNTING
- ▶ BANKING SERVICES
- ▶ BUSINESS FINANCE
- ▶ INSURANCE
- ▶ SECURITIES & INVESTMENTS

A career in finance requires certain skills and education depending on job requirements. Skills include planning services for financial and investment planning, banking, insurance, and business financial management.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Accounting	Accountant	\$66,500
Finance	Financial Analyst	\$78,450
Financial Counseling and Planning	Loan Officer	\$69,100
Kirkwood Associate's Degree	Sample Career	Salaries
Business Administration: Accounting	Accounting Clerk	\$37,000
Business Administration: Financial Services	Financial Clerk	\$40,000
Kirkwood Certificates	Sample Career	Salaries
Technical Accounting	Bookkeeper	\$35,000
Kirkwood Career Academies	Sample Career	Salaries
Pre-Business Administration	Bank Teller	\$27,050
Arts and Sciences	Cashier	\$24,850



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Intro to Business
- Computer Basics Applications
- Accounting I
- Accounting II
- Entrepreneurship
- Personal Finance
- Economics
- Elementary Statistics I & II

High School Related Activities and Clubs

- Internships
- Job Shadows

Open with ▼



Government & Public Administration

- ▶ FOREIGN SERVICE
- ▶ GOVERNANCE
- ▶ NATIONAL SECURITY
- ▶ PLANNING
- ▶ PUBLIC MANAGEMENT & ADMINISTRATION
- ▶ REGULATION
- ▶ REVENUE & TAXATION

A career in government and public administration requires certain skills and education depending on job requirements. Skills include planning and performing government functions at the local, state, and federal levels, including governance, national security, foreign service, planning, revenue and taxation, and regulations.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Urban Planning	Urban and Regional Planners	\$64,980
Public Administration	Assessor	\$79,050
Accounting	Auditor	\$66,500
Kirkwood Associate's Degree	Sample Career	Salaries
Business Administration	City Clerk	\$43,000
Business Administration: Management	Chamber of Commerce Chair	\$50,000
Administrative Management	Executive Assistant	\$45,500
Water Environmental Technology	Water Treatment Operator	\$45,000
Kirkwood Diploma	Sample Career	Salaries
Office Assistant	Office Assistant	\$34,000
Kirkwood Career Academies	Sample Career	Salaries
Pre-Business Administration	Receptionist	\$28,400
Arts and Sciences	Mail Clerk	\$29,100
Water Environmental Technology	Water Operator	\$24,950



*Information provided by Ermsi National data and Kirkwood Community College Regional Talent Forecast Data—Nov. 2018



High School Courses

- American Government
- Economics
- Modern Political Controversies
- Contemporary U.S. History
- Intro to Sociology
- Intro to Psychology
- AP US History
- AP US Government
- Intro to Business
- Business Law

High School Related Activities and Clubs

- Internships
- Job Shadows
- Debate Club



Health Sciences

- ▶ BIOTECHNOLOGY RESEARCH & DEVELOPMENT
- ▶ DIAGNOSTIC SERVICES
- ▶ HEALTH INFORMATICS
- ▶ SUPPORT SERVICES
- ▶ THERAPEUTIC SERVICES

A career in health sciences requires certain skills and education depending on job requirements. Skills include planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Advanced Degree	Sample Career	Salaries
Masters degree in Nursing	Nurse Practitioner	\$104,150
Masters degree in Health Science	Physician Assistant	\$110,150
Doctor of Medicine	Family and General Practice Medical Doctor	\$241,070

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Biology	Nurse (with BSD degree)	\$70,650
Dietetics	Dietitian	\$50,500
Healthcare Administration	Healthcare Administrator	\$91,700
Nursing	Nurse (with BSN degree)	\$70,650

**Additional Bachelor's Degrees include: Culinary Food Science, Diet and Exercise, Food Science & Global Health Studies*

Kirkwood Associate's Degree	Sample Career	Salaries
Dental Assisting	Dental Assistant	\$39,900
Dental Hygiene	Dental Hygienist	\$68,700
Dental Technology	Dental Laboratory Tech	\$41,500
Diagnostic Assistant (Radiologic Technology)	Radiologic Technologist	\$51,700
Electroneurodiagnostic Technology	Neurodiagnostic Technologist	\$41,300
Exercise Science & Wellness	Fitness Trainer	\$32,800
Health Information Technology	Health Information Technician	\$40,500
Medical Assisting	Medical Assistant	\$34,000
Medical Laboratory Technology	Clinical Lab Technician	\$48,400
Associate Degree Nursing, RN	Critical Care Nurse	\$57,900
Occupational Therapy Assistant	OTA	\$57,400
Paramedic	Paramedic	\$40,000
Physical Therapy Assistant	PTA	\$47,500
Respiratory Therapist	Respiratory Therapist	\$52,800
Surgical Technology	Surgical Technologist	\$41,700

Health Sciences

Open with ▾

Kirkwood Diploma	Sample Career	Salaries
Dental Assisting	Dental Assistant	\$39,900
Medical Coding	Medical Secretary	\$35,200
Medical Assisting	Phlebotomist	\$30,300
Medical Transcription	Medical Transcriptionist	\$34,700
Practical Nursing (LPN)	Nursing Home Nurse-LPN	\$41,600
Pharmacy Technician	Pharmacy Technician	\$31,100
Surgical Technology	Surgical Assistant	\$41,300
Kirkwood Certificates	Sample Career	Salaries
Medical Transcription	Entry Level Medical Transcriptionist	\$34,700
Nurse Aide	Certified Nurse Aide	\$28,300
EMT	EMT	\$34,500
Kirkwood Career Academies	Sample Career	Salaries
Emergency Medical Technician (EMT)	EMT	\$34,500
Patient Care Academy	Certified Nurse Aide	\$28,200
Pharmacy Technician Academy	Pharmacy Technician	\$31,200
Pre-Professional Health Careers Academy	Physical Therapist Aide	\$27,300



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Intro to Sociology
- Intro to Psychology
- Chemistry I
- Physics I
- Physical Science
- Chemistry
- Physical Science Physics
- Human Anatomy & Physiology
- Biology
- AP Biology
- Chemistry II
- World Language

High School Related Activities and Clubs

- Internships
- Job Shadows
- Win with Wellness Club



Hospitality & Tourism

- ▶ LODGING
- ▶ RECREATION, AMUSEMENTS & ATTRACTIONS
- ▶ RESTAURANTS & CULINARY ARTS SERVICES
- ▶ TRAVEL & TOURISM

A career in hospitality and tourism requires certain skills and education depending on job requirements. Skills include management, marketing, and operations of restaurants and other culinary arts services, lodging, attractions, recreation events, and travel related services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Hospitality Management	Executive Hotel Manager	\$97,450
Business Administration	Property Manager	\$67,000
Event Management	Hospitality Professor	\$110,400
Kirkwood Associate's Degree	Sample Career	Salaries
Culinary Arts	Chef	\$38,100
Hospitality Management	Lodging Manager	\$44,000
Kirkwood Diploma	Sample Career	Salaries
Baking & Pastry Arts	Baker	\$25,600
Hospitality Management	Event Planner	\$43,700
Kirkwood Career Academies	Sample Career	Salaries
Hospitality Management Academy	Concierge	\$25,450



*Information provided by Emisi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Intro to Sociology
- Intro to Psychology
- World Language
- Intro to Foods & Nutrition
- Advanced Foods & Nutrition
- Interior Design
- Culinary Arts
- Restaurant Operations 101
- Economics
- Graphic Design
- Intro to Business

High School Related Activities and Clubs

- Internships
- Job Shadows

Human Services

- ▶ CONSUMER SERVICES
- ▶ COUNSELING & MENTAL HEALTH SERVICES
- ▶ EARLY CHILDHOOD DEVELOPMENT & SERVICES
- ▶ FAMILY & COMMUNITY SERVICES
- ▶ PERSONAL CARE SERVICES

A career in human services requires certain skills and education depending on job requirements. Skills include preparing individuals that relates to family and human needs such as counseling and mental health services, family and community services, personal care, and consumer services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Social Work	Social Worker	\$61,300
Elementary Education	Kindergarten Teacher	\$51,100
Psychology	Therapist	\$47,710
Kirkwood Associate's Degree	Sample Career	Salaries
Early Childhood Education	Preschool Teacher	\$25,800
Human Services	Substance Abuse Counselor	\$44,200
Kirkwood Diploma	Sample Career	Salaries
Early Childhood Education	Teacher Assistant	\$24,400
Kirkwood Certificates	Sample Career	Salaries
Early Childhood Paraeducator	Paraeducator	\$24,900
Kirkwood Career Academies	Sample Career	Salaries
Pre-Education Transfer	Teacher Assistant	\$24,400
Pre-Human Services Transfer (Social Work)	Patient Escort	\$28,900
Arts and Science Academy	Childcare Worker	\$20,500



*Information provided by Emisi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Intro to Sociology
- Intro to Psychology
- World Language
- Child Development
- Health
- Families Today
- Parenting

High School Related Activities and Clubs

- Internships
- Job Shadows



Information Technology

Open with ▾

- ▶ INFORMATION SUPPORT & SERVICES
- ▶ NETWORK SYSTEMS
- ▶ PROGRAMMING & SOFTWARE DEVELOPMENT
- ▶ WEB & DIGITAL COMMUNICATIONS

A career in information technology requires certain skills and education depending on job requirements. Skills include building linkages in IT occupations for entry level, technical and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
<i>*Additional Bachelor's Degrees include: Technology, Technology and Engineering Education, Technology Management, Business Analytics and Information Systems, Technical Communication</i>		
Kirkwood Associate's Degree	Sample Career	Salaries
Computer Software Development	Software Developer	\$88,000
Computer Support Specialist	Desktop Configuration Administrator	\$59,700
Graphic Communication Technology	Graphic Designer	\$45,700
Web Technologies	Desktop Publisher	\$41,500
Network and System Administration	Network & Computer Systems Administrator	\$73,900
Kirkwood Diploma	Sample Career	Salaries
PC Technician	Computer Store Technician	\$50,900
Desktop Customer Service	Computer User Support Specialist	\$47,000
Kirkwood Certificates	Sample Career	Salaries
Database Technologies	Computer Operator	\$44,100
Java Programming	JAVA Script Developer	\$78,100
Mobile App Development	Web Application Developer	\$74,800
.NET Programming	Computer Programmer	\$58,100
Healthcare IT Technician	Document Management Specialist	\$77,300
Web Development	Website Developer	\$58,000
Web Design	Website Designer	\$47,700
Network Security	Security Management Specialist	\$63,300
Network and System Administration	Computer Network Support Specialist	\$54,000
Kirkwood Career Academies	Sample Career	Salaries
Computer Software Development (Coding)	User Experience Designer	\$40,000
Network Security	Information Clerk	\$28,800



*Information provided by Emis National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Introduction to Computers
- Computer Business Applications
- Digital Electronics (DE)
- Computer Science Engineering
- Technology Internship

High School Related Activities and Clubs

- Internships
- Job Shadows



Law, Public Safety, Corrections & Security

- ▶ CORRECTION SERVICES
- ▶ EMERGENCY & FIRE MANAGEMENT SERVICES
- ▶ LAW ENFORCEMENT SERVICES
- ▶ LEGAL SERVICES
- ▶ SECURITY & PROTECTIVE SERVICES

A career in law, public safety, corrections, and security requires certain skills and education depending on job requirements. Skills include planning, managing, and providing legal, public safety, protective services, and homeland security, including professional and technical support services.

Advanced Degree	Sample Career	Salaries
Juris Doctor, JD	Attorney/Lawyer	\$108,650
Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Public Health	Occupational Health and Safety Specialist	\$69,950
Criminology	Forensic Scientist	\$70,400
Linguistics	FBI Agent	\$97,000
Kirkwood Associate's Degree	Sample Career	Salaries
Criminal Justice	Police Patrol Officer	\$56,600
Entry-Level Firefighter	Firefighter/Prevention Supervisor	\$68,900
Paralegal Studies	Paralegal	\$48,100
Paramedic	Paramedic	\$40,000
Kirkwood Diploma	Sample Career	Salaries
Entry-Level Firefighter	Firefighter	\$41,200
Kirkwood Certificates	Sample Career	Salaries
Entry-Level Firefighter	Emergency Vehicle Operator	\$26,100
Emergency Medical Technician	EMT	\$26,100
Kirkwood Career Academies	Sample Career	Salaries
Pre-Criminal Justice Transfer	Security Guard	\$27,650
Emergency Medical Technician Academy	EMT	\$34,500
Arts and Sciences Academy	Police Dispatcher	\$44,550



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- | | |
|----------------------------|----------------------------|
| Intro to Sociology | Human Anatomy & Physiology |
| Intro to Psychology | Chemistry II |
| Chemistry I | World Language |
| Biology | PE |
| AP Biology | Health |
| Physical Science Chemistry | |
| Physical Science Physics | |

High School Related Activities and Clubs

- Internships
- Job Shadows



Manufacturing

- ▶ HEALTH, SAFETY & ENVIRONMENTAL ASSURANCE
- ▶ LOGISTICS & INVENTORY CONTROL
- ▶ MAINTENANCE, INSTALLATION & REPAIR

- ▶ MANUFACTURING PRODUCTION PROCESS DEV.
- ▶ PRODUCTION
- ▶ QUALITY ASSURANCE

A career in manufacturing requires certain skills and education depending on job requirements. Skills include planning, managing, and performing the process of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Aerospace Engineering	Aerospace Engineer	\$112,550
Mechanical Engineering	Mechanical Engineer	\$74,100
Manufacturing Technology	Industrial Production Manager	\$96,150
Kirkwood Associate's Degree	Sample Career	Salaries
Advanced Manufacturing and Robotics Technologies	CNC Mill Operator	\$37,700
Advanced Welding Technologies	Pipefitter	\$50,200
Automation and Instrumentation Technologies	Electro-Mechanical Technician	\$55,100
CNC Machining Technology	Tool and Die Maker	\$48,200
Electronics Engineering Technology	Security System Technician	\$46,300
CAD/Mechanical Engineering Technology	Mechanical Engineering Technician	\$49,900
Energy Production and Distribution Technologies	Wind Turbine Service Technician	\$62,300
Industrial Maintenance	Electro-Mechanical Technician	\$55,100
Kirkwood Diploma	Sample Career	Salaries
Entry-Level Welding	Brazer	\$37,900
CNC Machining Technology	Machinist	\$39,000
Electronics Engineering Technology	Security System Technician	\$46,300
CAD/Mechanical Engineering Technology	Test Technician	\$40,800
HVAC Installer	Heating and Air Conditioning Mechanic	\$50,500
Electromechanical Technology	Electromechanical Assembler	\$39,500
Plumbing Pre-Apprenticeship	Plumber	\$50,200*
Kirkwood Certificates	Sample Career	Salaries
Industrial Robotics Certificate	Computer Controlled Machine Operator	\$38,300
Kirkwood Career Academies	Sample Career	Salaries
Advanced Manufacturing with Robotics & Welding	Fabricator	\$32,300
Energy, Electrical, and Automation Academy	Vending Machine Service/Repairer	\$31,650



*Information provided by Emisi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

- Introduction to Architecture, Construction & Engineering
- Mechanical Drafting
- Construction Material Processing
- Metal Manufacturing
- Construction Technology
- Introduction to Engineering Design (IED)

- Principles of Engineering (POE)
- Digital Electronics (DE)
- Civil Engineering and Architecture
- Physical Science
- Physics
- Geometry
- Algebra

High School Related Activities and Clubs

- Internships
- Job Shadows

Marketing

- ▶ MARKETING COMMUNICATIONS
- ▶ MARKETING MANAGEMENT
- ▶ MARKETING RESEARCH
- ▶ MERCHANDISING
- ▶ PROFESSIONAL SALES

A career in marketing requires certain skills and education depending on job requirements. Skills such as anticipating, planning, managing, and performing marketing activities to reach organizational objectives such as advertising and promotion techniques, business communication, and business development.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Marketing	Market Research Analyst	\$58,600
Advertising and Digital Media	Public Relations Manager	\$103,500
Communication Studies	Marketing Coordinator	\$59,700
<i>*Additional Bachelor's Degrees include: Global Marketing Sales, Management</i>		
Kirkwood Associate's Degree	Sample Career	Salaries
Business Administration: Marketing Management	Public Relations Specialist	\$56,000
Apparel Merchandising	Apparel Merchandising	\$60,400
Kirkwood Diploma	Sample Career	Salaries
Office Assistant	Office Assistant	\$34,000
Kirkwood Certificates	Sample Career	Salaries
Retail Marketing	Merchandise Displayer	\$28,800
Sales	New Accounts Clerk	\$37,200
Social Media Marketing	Media Technician	\$34,400
Kirkwood Career Academies	Sample Career	Salaries
Pre-Business Administration	Retail Sales	\$28,800
Graphic and Communication Technology	Promotional Assistant	\$33,100



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- | | |
|----------------------------------|------------------------------|
| Intro to Business | Business Law |
| Computer Basics Applications | Entrepreneurship |
| Sports & Entertainment Marketing | Personal Finance |
| Accounting I | World Language |
| Accounting II | Elementary Statistics I & II |
| | Psychology |
| | Graphic Arts |

High School Related Activities and Clubs

- Internships
- Job Shadows



Science, Technology, Engineering & Math

- ▶ Engineering & Technology
- ▶ Science & Mathematics

A career in science, technology, engineering, and mathematics requires certain skills and education depending on job requirements. Skills include providing, planning, and managing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Bachelor's Degree from Iowa Universities and Colleges

	Sample Career	Salaries
Bio Chemistry	Bio Chemist	\$66,800
Actuarial Science	Actuary	\$100,750
Seed Science	Seed Scientist	\$76,700

**Additional Bachelor's Degrees include: Ag Engineering, Electrical Engineering, Microbiology, Physics, Geo Science, Ag and Life Sciences Education, Environmental Science, Nutritional Science, Bio Chemistry, Technology and Engineering Education, Animal Science, Family and Consumer Science Education, Physics, Communication Sciences and Disorder, Technology Management, Biological Systems Engineering, Food Science, Political Science, Computer Science, Technology, Chemical Engineering, Industrial Engineering, Seed Science, Earth Science, Applied Physics, Civil Engineering, Industrial Technology, Software Engineering, Graphic Technology, Bio Medical Engineering, Computer Engineering, Management and Information Systems, Statistics, Military Science, Business Analytics and Information Systems, Construction Engineering, Materials Engineering, Technical Communication, Movement and Exercise Science, Mortuary Science, Culinary Food Science, Mathematics, Biology, Science Education, Nuclear Medicine Technology, Dairy Science, Mechanical Engineering, Chemistry, Social Science, Radiation Sciences*

Kirkwood Associate's Degree

	Sample Career	Salaries
Advanced Manufacturing & Robotic Technologies	CNC Mill Operator	\$37,700
CAD/Mechanical Engineering Technology	CAD Drafter	\$54,900
Computer Software Development	Software Developer	\$88,000
Computer Support Specialist	Desktop Configuration Administrator	\$59,700
Energy Production & Distribution	Wind Turbine Service Technician	\$62,300
Exercise Science & Wellness	Fitness Trainer	\$32,800
Industrial Maintenance	Electro-Mechanical Technician	\$55,100
Network & System Administration	Network & Computer Systems Administrator	\$73,900
Water Environmental Technology	Water Treatment Operator	\$45,000

Kirkwood Diploma

	Sample Career	Salaries
PC Technician	Computer Store Technician	\$50,900
CAD/Mechanical Engineering Technology	Mechanical Engineering Technician	\$49,900
Desktop Customer Service	Computer User Support Specialist	\$47,000
Electromechanical Technology	Electromechanical Assembler	\$39,500

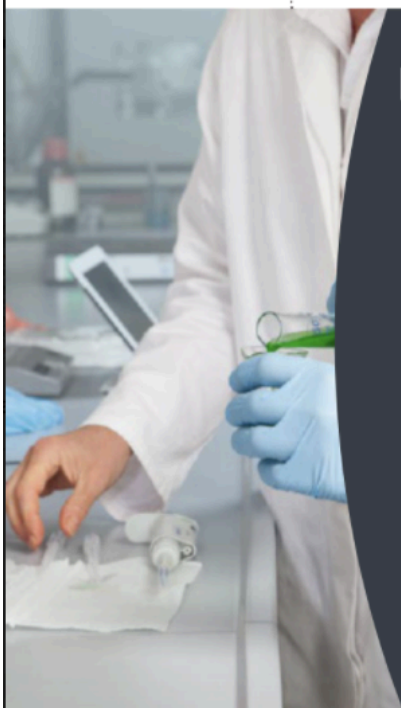


Science, Technology, Engineering & Math

Kirkwood Certificates	Sample Career	Salaries
Industrial Robotics	Computer Controlled Machine Operator	\$38,300
Database Technologies	Computer Operator	\$44,100
Java Programming	JAVA Script Developer	\$78,100
Mobile App Development	Web Developer	\$58,100
.NET Programming	Computer Programmer	\$58,100
Healthcare IT Technician	Document Management Specialist	\$77,300
Network Security	Security Management Specialist	\$63,300
Network and System Administration	Computer Network Support Specialist	\$54,000
Kirkwood Career Academies	Sample Career	Salaries
Advanced Manufacturing with Robotics & Welding	Fabricator	\$32,300
ACE: Architectural and Engineering Design (Pre-Apprenticeship)	Design Assistant	\$30,100
Computer Programming & Web Development	User Experience Designer	\$40,000
Engineering: Project Lead The Way	Sound Engineer	\$48,200
Pre-Professional Health Careers	Physical Therapist Aide	\$27,300
Water Environmental Technology	Water Operator	\$24,950



*Information provided by Emisi National data and Kirkwood Community College Regional Talent Forecast Data - Nov. 2018



High School Courses

High School Related Activities and Clubs



Transportation

- ▶ FACILITY & MOBILE EQUIPMENT MAINTENANCE
- ▶ HEALTH, SAFETY & ENVIRONMENTAL MANAGEMENT
- ▶ LOGISTICS PLANNING & MANAGEMENT SERVICES
- ▶ SALES & SERVICE
- ▶ TRANSPORTATION OPERATIONS
- ▶ TRANSPORTATION SYSTEMS/INFRASTRUCTURE PLANNING, MANAGEMENT & REGULATION
- ▶ WAREHOUSING & DISTRIBUTION CENTER OPERATIONS

A career in transportation, distribution, and logistics requires certain skills and education depending on job requirements. Skills include planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water and related professional support services such as transportation infrastructure planning and management, logistic services, mobile equipment and facility maintenance.

Bachelor's Degree from Iowa Universities and Colleges	Sample Career	Salaries
Finance	Insurance Appraiser	\$60,600
Business Administration	Transportation Manager	\$83,000
Supply Chain Management	Logistics Coordinator	\$89,100
Kirkwood Associate's Degree	Sample Career	Salaries
Automotive Technology	Automotive Service Technician	\$40,600
Diesel Ag Technology	Heavy Diesel Equipment Technician	\$41,000
Diesel Truck Technology	Diesel Mechanic	\$40,000
Kirkwood Diploma	Sample Career	Salaries
Automotive Collision Repair	Auto Body Technician	\$41,100
Kirkwood Career Academies	Sample Career	Salaries
Automotive Collision	Auto Glass Installer	\$31,000
Automotive Technology	Automotive Service Attendant	\$28,700



*Information provided by Emsi National data and Kirkwood Community College Regional Talent Forecast Data – Nov. 2018



High School Courses

- Digital Electronics
- Economics
- Mechanical Drafting
- Metal Manufacturing

High School Related Activities and Clubs

- Internships
- Job Shadows

Course Essential Standards

AGRICULTURAL EDUCATION

Introduction to Agriculture, Food, and Natural Resources (AFNR)

Course Number: 329AFNR

- Students will use a minimum of four science processes to design an experiment.
- Students will conduct an inquiry lab on the effect of pH on plant health.
- Students will determine the differences in structural parts between an animal and plant cell.
- Students will investigate the effects organic matter has on soil porosity and soil air holding capacity.
- Students will test soil permeability to understand the relationship between soil particle size and rate of water filtration.
- Students will simulate the flow of energy in an ecosystem.
- Students will describe the functions of plant parts.
- Students will research and identify the six essential nutrients and the functions of each.
- Students will use English and metric measurement systems to determine the length of objects.
- Students will use proportions to solve problems and determine dimensions of objects drawn to scale.

Animal Science

Course Number: 329PASA

- Students will compare domestic and wild animals using the characteristics of domestication.
- Students will recognize issues in animal agriculture and discuss the positive and negative impacts of each issue.
- Students will research the basic feed, water, and shelter requirements for animals.
- Students will conduct an inquiry on the effects of external conditions on respiration rate, pulse, and blood pressure.
- Students will label, identify, and explain the function of various parts of animal digestive systems.
- Students will identify the six classes of nutrients, the function they serve in the body, and sources of each nutrient.
- Students will distinguish between the different livestock breeding systems.
- Students will compare animals based on their expected progeny differences (EPDs).
- Students will define the differences of infectious, contagious, and non-infectious diseases.
- Students will make decisions based on given priorities and criteria, and analyze objects as they compare ideal criteria.

Plant Science

Course Number: 329PM

Students will investigate environmental influences on crop production.

- Students will test soil permeability to understand the relationship between soil particle size and rate of water filtration.
- Students will demonstrate the principles of water holding capacity and represent differences between test substances with data.
- Students will describe the function of the major plant parts.
- Students will identify the parts of a flower and explain the function for each part.
- Students will identify plants by using physical features.
- Students will identify the effects of nutrient deficiencies in plants by observing anatomical differences.
- Students will calculate estimated plant maturity dates using growing degree-days to compare two geographical locations.
- Students will compare and contrast different asexual propagation methods.
- Students will identify how pests affect crop quality.

Food Science and Safety

Course Number: 747

- Students will explain roles and functions of individuals engaged in human service careers.
- Students will summarize education and training requirements and opportunities for career paths.
- Students will explain physical, emotional, social, financial, psychological, cultural, and spiritual components of individual and family wellness.
- Students will investigate the effects of psychological, cultural, and social influences on food choices and other nutrition practices.
- Students will investigate the governmental, economic, and technological influences on food choices and practices.
- Students will analyze the effects of global, regional, and local events and conditions on food choices and practices.
- Students will analyze legislation and regulations related to nutrition and wellness.
- Students will analyze conditions and practices that promote safe food handling.
- Students will analyze safety and sanitation practices.
- Students will analyze how changes in local, regional, national, and international food production and distribution systems influence the food supply, including sustainability, organic food production and the impact of genetically modified foods.
- Students will investigate federal, state, and local inspection and labeling systems that protect the health of individuals and the public.
- Students will analyze foodborne illness factors, including causes, potentially hazardous foods, and methods of prevention.
- Students will analyze current consumer information about food safety and sanitation.
- Students will conduct market research to determine consumer trends and product development needs for diverse populations.
- Students will design or analyze a consumer product.
- Students will analyze features, prices, product information, styles, and performance of consumer goods for potential global impact and trade-offs among the components.
- Students will evaluate a product utilizing valid and reliable testing procedures.
- Students will apply statistical analysis processes to interpret, summarize, and report data from tests.
- Students will evaluate the labeling, packaging, and support materials of consumer goods.
- Students will demonstrate a plan to educate an audience about a new product on the consumer market.
- Students will utilize appropriate marketing and sales techniques to aid consumers in the selection of goods and services that meet consumer needs.
- Students will analyze the various types of cleaning methods and their environmental effects.
- Students will summarize federal and state regulations regarding safe handling, usage, and storage of chemicals.

Survey of Animal Industry-KCC

Course Number: 546

- Students will discuss the importance of animal agriculture to the economy and society.
- Students will identify livestock products and outline grading standards.
- Students will identify basic anatomical structures involved in reproduction and discuss common practice related to animal reproduction.
- Students will discuss basic genetic principles and their application in livestock breeding systems.
- Students will identify basic digestive system anatomy, identify common feedstuff and describe common feeding practices.
- Students will explain the physiology of milk production and factors that affect the level of efficiency of production.
- Students will determine the impact of the environment on animal performance and behavior.
- Students will identify factors and conditions associated with the optimum health of animals.
- Students will outline current issues of society that are affecting the animal industry.
- Students will broadly describe beef production practices and goals.
- Students will broadly describe dairy production practice and goals.
- Students will broadly describe swine production practices and goals.
- Students will broadly describe sheep production practices and goals.
- Students will discuss career opportunities in the animal industry.

Principles of Agronomy-KCC

Course Number:

- Students will distinguish the different elements of the environment and how it impacts growth patterns.
- Students will identify anatomy and physiology at various stages of plant development.
- Students will explain crop improvement strategies.
- Students will summarize the impact of cropping systems on inputs and outputs.
- Students will describe common crop production issues.

Agricultural Business & Marketing

Course Number: 737

- Students will apply management planning principles in an AFNR Business
- Students will use record keeping to accomplish AFNR objectives
- Students will manage budgets for an AFNR business
- Students will use sales and marketing principles to accomplish AFNR Business Objectives

Natural Resources

Course Number: 66

- Students will examine the importance of health, safety, and environmental management systems in organizations and their importance to performance and regulatory compliance.
- Students will utilize scientific inquiry as an investigative method.
- Students will explain interrelationships between natural resources and humans necessary to conduct management activities in natural environments.
- Students will apply scientific principles to natural resources management activities.
- Students will apply knowledge of natural resources to production and processing industries.
- Students will demonstrate techniques used to protect natural resources.
- Students will use effective methods and venues to communicate natural resource processes to the public.
- Students will apply ecological concepts and principles to terrestrial natural resource systems.

ART

Photography: Black and White

Course number: 10

- Students will use multiple approaches to shooting the different photography projects, including researching examples, places to take photos and teacher modeling of techniques.
- Students will choose from a range of materials and methods of shooting photos.
- Students will, through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in photography.
- Students will use the skills I learn in the darkroom to consistently improve the development of my photos in the printing process
- Students will engage in constructive critique with peers, then reflect on, re engage, revise, and refine works of art and design in response to personal artistic vision.
- Students will take feedback from my peers during a critique and use that information to improve or revise my work.
- Students will analyze, select, and critique personal photographs for a collection or presentation.
- Students will distinguish and select what are my best prints for presentation
- Students will analyze how one's world is affected by experiencing visual imagery.
- Students will evaluate the effectiveness of a photograph(s) to influence ideas, feelings, and behaviors of specific audiences.
- Students will describe how knowledge of culture, traditions, and history may influence personal responses to the types of images you photograph.
- Students will look at photographers from history and understand the impact they had during their time period and connect how today's photographers are doing the same thing for current events.

Photography: Digital

Course number: 699PHDI

- Students will use multiple approaches to shooting the different photography projects, including researching examples, places to take photos and teacher modeling of techniques.
- Students will choose from a range of materials and methods of shoot photos.
- Students will apply relevant criteria from traditional cultural contexts to examine, reflect on, and plan revisions for works of art and design in progress.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in photography, composition and Photoshop.
- Students will make, explain, and justify connections between artists or artwork.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.
- Students will describe how knowledge of culture, traditions, and history may influence personal responses to art.

Glassworks

Course Numbers: 103

- Students will use multiple approaches to begin a stained glass project, including research, sketching, and teacher modeling of techniques.
- Students will choose from a range of materials and methods of traditional glass practices to plan works of art and design, such as cartoon pattern designs and mosaics.
- Students will apply relevant criteria from traditional cultural contexts to examine, reflect on, and plan revisions for works of art and design in progress.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in stained glass.
- Students will make, explain, and justify connections between artists or artwork.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.
- Students will describe how knowledge of culture, traditions, and history may influence personal responses to art.

Glassworks II

Course Number: 103B

- Students will use multiple approaches to begin a 3D glass project, including research, sketching, and teacher modeling of techniques.
- Students will choose from a range of materials and methods of traditional artistic practices to plan works of art and design, such as pattern making, mosaics, 3D forms, Jigs and glass saw.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in stained glass.
- Students will make, explain, and justify connections between artists or artwork.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.

Drawing I:

Course number: 101D

- Students will use multiple approaches to begin a drawing project, including research, sketching, and teacher modeling of techniques.
- Students will choose from a range of materials and methods of traditional artistic practices to plan works of art and design, such as charcoal, pencil, colored pencil, and chalk/oil pastels.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in drawing.
- Students will engage in constructive critique, then reflect on, re-engage, revise, and refine works of art and design in response to personal artistic vision.
- Students will interpret an artwork supported by relevant and sufficient evidence found in the work and its various contexts.
- Students will establish relevant criteria in order to evaluate a work of art.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.
- Students will describe how knowledge of culture, traditions, and history may influence personal responses to art.

Drawing II:

Course number: 101

- Students will use multiple approaches to begin a drawing project, including research, sketching, and teacher modeling of techniques.
- Students will choose from a range of materials and methods of traditional artistic practices to plan works of art and design, such as charcoal, pencil, colored pencil, and chalk/oil pastels.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in drawing.
- Students will engage in constructive critique, then reflect on, re-engage, revise, and refine works of art and design in response to personal artistic vision.
- Students will make, explain, and justify connections between artists or artwork.
- Students will interpret an artwork supported by relevant and sufficient evidence found in the work and its various contexts.
- Students will establish relevant criteria in order to evaluate a work of art.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.
- Students will describe how knowledge of culture, traditions, and history may influence personal responses to art.

Painting I:**Course number: 101P**

- Students will use multiple approaches to begin a painting project, including research, sketching, and teacher modeling of techniques.
- Students will choose from a range of materials and methods of traditional artistic practices to plan works of art and design, such as acrylic and watercolors.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in drawing and painting.
- Students will engage in constructive critique, then reflect on, re-engage, revise, and refine works of art and design in response to personal artistic vision.
- Students will make, explain, and justify connections between artists or artwork.
- Students will interpret an artwork supported by relevant and sufficient evidence found in the work and its various contexts.
- Students will establish relevant criteria in order to evaluate a work of art.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.
- Students will describe how knowledge of culture, traditions, and history may influence personal responses to art.

Painting II:**Course number: 101**

- Students will use multiple approaches to begin a painting project, including research, sketching, and teacher modeling of techniques.
- Students will choose from a range of materials and methods of traditional artistic practices to plan works of art and design, such as acrylic and watercolors.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in drawing and painting.
- Students will engage in constructive critique, then reflect on, re-engage, revise, and refine works of art and design in response to personal artistic vision.
- Students will interpret an artwork supported by relevant and sufficient evidence found in the work and its various contexts.
- Students will establish relevant criteria in order to evaluate a work of art.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.
- Students will describe how knowledge of culture, traditions, and history may influence personal responses to art.

Ceramics I**Course number: 105**

- Students will use multiple approaches to begin a ceramics project, including research, sketching, and teacher modeling of techniques.
- Students will choose from a range of materials and methods of traditional artistic practices to plan works of art and design, such as coil building, pinch pots, slab building, and common finishing techniques.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge in ceramics.
- Students will apply relevant criteria from traditional cultural contexts to examine, reflect on, and plan revisions for works of art and design in progress.
- Students will make, explain, and justify connections between artists or artwork.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.
- Students will describe how knowledge of culture, traditions, and history may influence personal responses to art.

Ceramics II:**Course number:126**

- Students will use multiple approaches to begin creative endeavors.
- Students will choose from a range of materials and methods of traditional and contemporary artistic practices to plan works of art and design.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge.
- Students will apply relevant criteria from traditional cultural contexts to examine, reflect on, and plan revisions for works of art and design in progress.
- Students will make, explain, and justify connections between artists or artwork.
- Students will interpret an artwork supported by relevant and sufficient evidence found in the work and its various contexts.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.

Graphic Design**Course number: 107**

- Students will use multiple approaches to begin creative endeavors.
- Students will choose from a range of materials and methods of traditional and contemporary artistic practices to plan works of art and design.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge.
- Students will apply relevant criteria from traditional cultural contexts to examine, reflect on, and plan revisions for works of art and design in progress.
- Students will make, explain, and justify connections between artists or artwork.
- Students will interpret an artwork supported by relevant and sufficient evidence found in the work and its various contexts.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.

Advanced Art**Course number: 108**

- Students will use multiple approaches to begin creative endeavors.
- Students will choose from a range of materials and methods of traditional and contemporary artistic practices to plan works of art and design.
- Students will through experimentation, practice, and persistence, demonstrate acquisition of skills and knowledge.
- Students will apply relevant criteria from traditional cultural contexts to examine, reflect on, and plan revisions for works of art and design in progress.
- Students will make, explain, and justify connections between artists or artwork.
- Students will interpret an artwork supported by relevant and sufficient evidence found in the work and its various contexts.
- Students will utilize inquiry methods of observation, research, and experimentation to explore unfamiliar subjects through art making.

BUSINESS

Accounting I

Course number: 109

- Students will analyze business transactions into debit and credit parts.
- Students will record business transactions as entries in a journal
- Students will post debit and credit entries from a journal to the general ledger
- Students will apply accounting procedures to perform banking activities
- Students will prepare a worksheet with adjusting entries
- Students will analyze data to prepare financial statements
- Students will record closing entries in a journal and prepare a Post-Closing Trial Balance
- Students will journalize transactions using purchases, sales, cash payments and cash receipts journals

Accounting II

Course number: 110

- Students will analyze a payroll transaction
- Students will calculate and record employer payroll taxes
- Students will prepare selected payroll tax reports
- Students will record losses from uncollectible accounts
- Students will estimate uncollectible accounts expense
- Students will record and account for the collection of a note receivable
- Students will adjust supplies, insurance and merchandise inventory
- Students will post adjusting entries
- Students will prepare an adjusted trial balance
- Students will prepare an income statement, stockholders' equity statement and a balance sheet for a corporation
- Students will analyze an income statement and balance sheet
- Students will identify the components of a loan application

Business Law

Course number: 080

- Students will understand legal procedures and the range of legal remedies
- Students will understand civil law and procedures.
- Students will use precise legal language
- Students will explain bankruptcy and how it works.
- Students will analyze legal situations.
- Students will apply principles to legal situations.
- Students will understand contract law.
- Students will understand concepts related to renting and leasing.
- Students will demonstrate basic knowledge of insurance.

Computer Business Applications

Course number: 111

- Students will use Microsoft Word to create, modify, store and retrieve documents
- Students will use Microsoft Word to apply a variety of formatting to documents
- Students will use Microsoft Excel to design, create, manipulate data and perform calculations.
- Students will organize information and solve mathematical problems with functions using Microsoft Excel
- Students will use Microsoft Excel to create, format, modify and print charts from spreadsheet data

Introduction to Business

Course number: 112

- Students will describe how wants, needs and resources impact business decisions
- Students will explain supply and demand
- Students will identify ethical behavior and how it benefits individuals and businesses
- Students will describe the advantages and disadvantages of the three major forms of business organizations
- Students will identify the types of media that businesses use to reach potential customers
- Students will describe the functions of management and skills necessary for effective management
- Students will understand the concepts of operating a retail business
- Students will have a basic understanding of the stock market

Sports & Entertainment Marketing

Course number: 113

- Students will apply the functions of marketing to buying and selling products
- Students will understand the economic principles and concepts fundamental to marketing
- Students will understand the concepts, systems, and tools needed to gather ,access and disseminate information for use in making business decisions
- Students will analyze the concepts and actions needed to obtain, develop and maintain a product or service in response to market opportunities
- Students will understand the concepts and actions needed to determine client wants and needs.
- Students will apply concepts and strategies to operate a sporting event

Entrepreneurship

Course number: 114

- Students will demonstrate basic knowledge of being a sole proprietor
- Students will understand the personal traits/behaviors associated with successful entrepreneurial performance
- Students will understand the economic principles and concept fundamental to entrepreneurs
- Students will understand the concepts and systems needed to satisfy customer expectations, meet business goals and create new product/service ideas
- Students will prepare a business canvas as described in the BizInnovator program

ENGINEERING

Introduction to Engineering Design (IED)

Course number: 529

- Students will explain and justify an engineering design process.
- Students will read and interpret technical drawings.
- Students will create technical drawings to fully detail an object or part.
- Students will solve real-world and hypothetical mathematical problems involving area and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, right prisms, cylinders, and spheres.
- Students will create a solid part model using 3D computer-aided design (CAD) software to represent an object.
- Students will create an assembly model using 3D computer-aided design (CAD) software to represent an assembly of parts.
- Students will use a variety of measuring devices, measure and report quantities accurately and to a precision appropriate for the purpose.
- Students will apply mathematical (including graphical) models and interpret the output of models to test ideas or make predictions.
- Students will analyze a consumer product using reverse engineering techniques to document visual, functional, and structural aspects of the design.

Principles of Engineering (POE)**Course numbers: 530**

- Students will demonstrate independent thinking and self-direction in pursuit of accomplishing a goal.
- Students will measure forces and distances and calculate mechanical advantage, work, power, and efficiency in mechanical systems
- Students will create a flowchart, pseudocode, and computer program to implement an algorithm.
- Students will draw free body diagrams of objects, identifying all forces acting on the object.
- Students will analyze parallel and series circuits resistance, current, and voltage using Ohm's law
- Students will distinguish between digital and analog data, and the inputs and outputs of a computational system.
- Students will identify engineering disciplines and engineering expertise that are critical to the solution of a specific problem

Digital Electronics (DE)**Course number: 303**

- Students will calculate voltage, current, and/or resistance for components in a simple or complex circuit.
- Students will identify and describe the characteristics of common components and logic gates
- Students will create, interpret, and/or modify an AOI combinational logic circuit based on design requirements according to a systematic process for designing a combinational logic circuit.
- Students will design, interpret, and/or modify asynchronous counter circuits based on specific design requirements using SSI and/or MSI to count up/down, hold/rest, and start/stop counts according to any desired range.
- Students will simplify an AOI circuit design by applying mathematics, K-Mapping, and/or universal gates.
- Students will persevere to solve a problem or achieve a goal.
- Students will use mathematical processes to convert any value between any two number systems

Civil Engineering and Architecture**Course number: 531**

- Students will identify and define visual, functional, and structural design requirements with realistic constraints, against which solution alternatives can be evaluated
- Students will populate a spreadsheet application with data and organize the data to be useful in accomplishing a specific goal.
- Students will construct physical objects to represent design ideas
- Students will create building designs that successfully address and reflect the building's intended function, location, community, and desired aesthetic presentation.
- Students will determine building design loads and predict the transfer of those loads through a building structure.
- Students will create preliminary designs for plumbing and electrical systems for a building project.
- Students will use an auto level to determine the elevation of a point of interest given the elevation of a known point.
- Students will use Architectural 3D modeling software to document the design and specify the construction of a building project.
- Students will describe and distinguish among the sub-disciplines of civil engineering and architecture.
- Students will strive to create sustainable solutions to meet the needs of society, without compromising the ability of future society to meet their needs.
- Students will facilitate an effective team environment to promote successful goal attainment.

Introduction to Computer Science**Course number: 721**

- Students will design projects that combine hardware and software components to collect and exchange data.
- Students will systematically identify and fix problems with computing devices and their components.
- Students will discuss real-world cybersecurity problems and how personal information can be protected.
- Students will represent data using multiple encoding schemes.
- Students will collect data using computational tools and transform the data to make it more useful and reliable.
- Students will create programs that use variables to store and modify data.
- Students will create clearly named variables that represent different data types and perform operations on their values.
- Students will create programs that include sequences, events, loops, and conditionals.
- Students will design and iteratively develop programs that combine control structures, including nested loops and compound conditionals.
- Students will modify, remix, or incorporate portions of an existing program into one's own work, to develop something new or add more advanced features.
- Students will take on varying roles, with teacher guidance, when collaborating with peers during the design, implementation, and review stages of program development.
- Students will discuss computing technologies that have changed the world, and express how those technologies influence, and are influenced by, cultural practices.

Computer Science Engineering

Course number: 537

- Students will compare levels of abstraction and interactions between application software, system software, and hardware layers.
- Students will model the role of protocols in transmitting data across networks and the Internet.
- Students will recommend security measures to address various scenarios based on factors such as efficiency, feasibility, and ethical impacts.
- Students will translate between different bit representations of real-world phenomena, such as characters, numbers, and images.
- Students will create interactive data visualizations using software tools to help others better understand real-world phenomena.
- Students will use flowcharts and/or pseudocode to address complex problems as algorithms.
- Students will use lists to simplify solutions, generalizing computational problems instead of repeatedly using simple variables.
- Students will decompose problems into smaller components through systematic analysis, using constructs such as procedures, modules, and/or objects.
- Students will systematically design and develop programs for broad audiences by incorporating feedback from users.
- Students will design and develop computational artifacts working in team roles using collaborative tools.
- Students will evaluate the ways computing impacts personal, ethical, social, economic, and cultural practices.
- Students will evaluate the social and economic implications of privacy in the context of safety, law, or ethics.

Technology Internship

Course number: 197IT

- Students will do basic repair and care for computers and other electronic hardware.
- Students will interact with staff and students while learning customer service skills.
- Students will develop an independent technology project and rubric with guidance and approval from the instructor.

FAMILY and CONSUMER SCIENCES

Textiles and Construction

Course number: 016

- Students will demonstrate skills needed for product development, testing, and presentation.
- Students will apply hazardous materials and waste management procedures.
- Students will demonstrate a work environment that provides safety and security.
- Students will analyze the effects of textiles, fashion, and apparel industries on local, state, national, and global economies.
- Students will demonstrate textiles, fashion, and apparel design skill.
- Students will demonstrate skills needed to produce, alter, or repair textiles, fashion, and apparel.

Fashion Marketing

Course number: 017

- Students will evaluate elements of textiles, fashion, and apparel merchandising.
- Students will analyze the effects of textiles, fashion, and apparel industry on local, state, national, and global economies.
- Students will demonstrate textiles, fashion, and design skills
- Students will evaluate elements of textiles, fashion, and apparel merchandising.
- Students will demonstrate facilities management functions.

Introduction to Food & Nutrition

Course number: 018

- Students will analyze career paths within human service industries.
- Students will analyze factors that influence nutrition and wellness practices across the life span.
- Students will examine the nutritional needs of individuals and families in relation to health and wellness across the lifespan.
- Students will demonstrate ability to acquire, handle, and use foods to meet nutrition and wellness needs of individuals and families across the lifespan.
- Students will evaluate factors that affect food safety from production through consumption.
- Students will demonstrate sanitation procedures for a clean and safe environment.

Advanced Food & Nutrition

Course number: 019

- Students will demonstrate skills needed for product development, testing, and presentation.
- Students will demonstrate sanitation procedures for a clean and safe environment.
- Students will demonstrate a work environment that provides safety and security.
- Students will demonstrate professional behaviors, skills, and knowledge in providing family and human services.

Culinary Arts

Course number: 427

- Students will analyze career paths within human service industries.
- Students will demonstrate transferable knowledge, attitudes, and technical and employability skills in school, community and workplace settings.
- Students will evaluate factors that affect food safety from production through consumption.
- Students will evaluate the influence of science and technology on food, nutrition, and wellness.
- Students will demonstrate sanitation procedures for a clean and safe environment.
- Students will apply hazardous materials and waste management procedures.
- Students will demonstrate a work environment that provides safety and security.

Food Production

Course number: 263

- Students will analyze career paths within human service industries.

- Students will demonstrate skills needed for product development, testing, and presentation.
- Students will demonstrate sanitation procedures for a clean and safe environment.

Personal Finance

Course number: 263

- Students will analyze saving and investing to build financial security and wealth.
- Students will analyze financial goals, budgets, and expense tracking to understand effective money management strategies
- Students will manage credit and debt to remain both creditworthy and financially secure.
- Students will analyze the features of insurance, its role in balancing risk and benefits in financial planning.
- Students will analyze how education, income, career, and life choices relate to achieving financial goals.

Families Today

Course number: 264

- Students will analyze the effects of family as a system on individuals and society
- Students will investigate the role of family in teaching culture and traditions across the lifespan
- Students will analyze the effects on individuals and families of change and transitions over the life span
- Students will evaluate the effects of diverse perspectives, needs, and characteristics of individuals and families
- Students will analyze the impact of education and policy on family systems
- Students will identify strategies to advocate for stronger family systems
- Students will analyze functions and expectations of various types of relationships
- Students will analyze personal needs and characteristics and their effects on interpersonal relationships
- Students will demonstrate communication skills that contribute to positive relationships
- Students will evaluate effective conflict prevention and management techniques
- Students will demonstrate teamwork and leadership skills in the family, workplace, and community
- Students will create an environment that encourages and respects the ideas, perspectives, and contributions of all group members
- Students will analyze community resources and services available to families

Child Development

Course number: 022

- Students will analyze factors that influence human growth & development
- Students will analyze principles of human growth and development across the lifespan
- Students will analyze conditions that influence human growth and development
- Students will analyze strategies that promote growth and development across the lifespan
- Students will identify characteristics of physical, emotional, social, and intellectual development
- Students will analyze the effect of heredity and environment on human growth and development
- Students will demonstrate strategies that promote growth and development

Interior Design

Course number: 428

- Students will evaluate client's needs, goals, and resources in creating design plans for housing and residential and commercial interiors
- Students will evaluate the use of elements and principles of design in housing and commercial and residential interiors
- Students will integrate knowledge, skills, and practices needed for a career in the human services cluster (family and human services, hospitality and tourism, education and training, housing and apparel)

Parenting

Course number: 020

- Analyze parenting roles across the life span.

- Analyze expectations and responsibilities of parenting.
- Analyze influences of parenting practices on individuals, families, and society.
- Analyze societal conditions that influence parenting across the life span.
- Explain cultural differences and similarities in roles and responsibilities of parenting.
- Analyze nurturing practices that support human growth and development.
- Apply communication strategies that promote emotional well-being in family members.
- Assess common practices and emerging research about influences of discipline on human growth and development.
- Analyze the effects of abuse and neglect on children and families and determine methods for prevention.
- Apply criteria for selecting care and services for children and youth.
- Analyze community resources and services available to families.
- Analyze community resources that provide opportunities related to parenting.
- Analyze current laws and policies related to parenting.
- Analyze impacts of advocacy on laws and policies related to parenting

INDUSTRIAL TECHNOLOGY

Introduction to ACE

Course number: 023

- Students will understand and apply practices and procedures required to maintain jobsite safety
- Students will determine the components necessary to ensure environmental safety on the jobsite
- Students will understand measurement systems as they apply to engineering design.
- Students will Know how the various measurement systems are used in engineering drawings.
- Students will understand the degree of accuracy necessary for engineering design
- Students will understand the sketching process used in concept development.
- Students will understand the process of producing proportional two- and three-dimensional sketches and designs.
- Students will use sketching techniques as they apply to a variety of architectural and engineering models.
- Students will use freehand graphic communication skills to represent conceptual ideas, analysis, and design concepts.

Mechanical Drafting

Course number: 027

- Students will understand the steps in the design process
- Students will know how the various measurement systems are used in engineering drawings.
- Students will use the concepts of geometric construction in the development of design drawings.
- Students will understand the function of sectional views.
- Students will understand the processes of lettering and text editing.
- Students will understand the process of producing proportional two- and three-dimensional sketches and designs.
- Students will use sketching techniques as they apply to a variety of architectural and engineering models.

Construction Material Processing

Course number: 031

- Students will read, interpret, and use technical drawings, documents and specifications to plan a project.

- Students will use an architect's plan, manufacturer's illustrations and other materials to communicate specific data and visualize proposed work.
- Students will understand the safe and appropriate use of portable power tools common to the cabinetmaking and wood products industry.
- Students will use portable power tools, such as single and compound miter saws, drills, sanders, saber saws, and routers, safely and appropriately.
- Students will use pneumatic tools, such as pneumatic clamps, grips, framing nail guns, and finishing and brad nail guns, safely and properly.
- Students will maintain and care for portable power and pneumatic tools.
- Students will understand the safe and appropriate use of stationary power machines and equipment common to the cabinetmaking and wood products industry.
- Students will understand the proper and safe use of stationary power tools used in the milling process, such as shapers, sanders, joiners, table saws, and bandsaws.
- Students will understand the proper and safe use of stationary power tools used in the assembly process, such as pneumatic table clamps, case clamps, case frame fasteners, and hardware fasteners.
- Students will understand the proper and safe use of stationary power tools used in the finishing process, such as glue applicators, laminate applicators, and lacquer and paint applicators.
- Students will know the basic care, maintenance, and lock-out procedures for stationary power tools.

Intro to Manufacturing

Course number: 025

- Students will describe workplace knowledge and skills common to manufacturing.
- Students will demonstrate the planning and layout processes (e.g., designing, print reading, measuring) used in manufacturing.
- Students will be able to read prints and use the information to plan, lay out and produce parts or products.
- Students will understand the planning and layout operations used in machine tool and materials forming processes.
- Students will demonstrate safe practices and procedures with tools and equipment.
- Students will demonstrate appropriate use of personal protective equipment
- Students will document safety concerns according to local policies and procedures
- Students will analyze hazardous materials procedures and OSHA.
- Students will apply safety practices in the lab and on worksites.
- Students will interpret scaled machine tool and materials forming prints; gather design and materials information; perform calculations; and use the detail to plan, lay out, and produce parts or finished products that meet applicable standards.
- Students will understand the design parameters across machine tool and materials-forming organizational levels.
- Students will use current information technology ideation and design process systems in the manufacturing of machined and formed parts and products.
- Students will understand the operation and functions of machine tools in production and prototype work.
- Students will use various machine tools, such as lathes, mills, drills, and saws, to produce parts and products.
- Students will select appropriate machining processes and equipment to produce prototypes or production parts or products.

Construction Technology

Course number: 032

- Students will safely use and maintain appropriate tools, machinery, equipment, and resources to accomplish construction project goals.
- Students will select tools, machinery, equipment, and supplies that match project requirements
- Students will understand the safe and appropriate use of hand tools common to the residential and commercial construction industry.
- Students will use the common hand tools of the trade, such as hammers, torches, pliers, wire cutters, pipe cutters, saws, chisels (wood and concrete), and wrenches, safely and properly.
- Students will maintain and care for hand tools used in residential and commercial construction.
- Students will understand the value and necessity of practicing occupational safety in the construction industry facility and job site
- Students will understand the safe use of electrical connection methods and electrical wiring procedures
- Students will know the safety procedures and practices in various work environment settings pertaining to residential and commercial construction.

LANGUAGE ARTS

English 9

Course number: 002

- Students will be able to determine the theme of a text, and analyze how that theme might change over the course of the text.
- Students will be able to read and comprehend a variety of literary genres (short stories, dramas, poems, and novels).
- Students will be able to analyze different accounts of a subject told in different mediums. Students will be able to determine the emphasized components of the text.
- Students will be able to develop and support a claim using evidence from the text to support their claim.
- Students will be able to gather information from multiple sources, and effectively assess the usefulness of each source. Students will also be able to appropriately cite multiple sources in the correct format.
- Students will be able to prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
- Students will be able to present information, findings, and supporting evidence, conveying a clear and distinct perspective for both formal and informal tasks.
- Students will be able to demonstrate a command of the conventions of standard English when writing and/or speaking.
- Students will be able to interpret figures of speech in context and analyze their role in the text.

English 10

Course number: 003

- Students can write arguments to support claims in an analysis of topics or texts, using valid reasoning and relevant and sufficient evidence.
- Students will write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- Students will develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 9–10.)
- Students will cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Students will determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
- Students will analyze how complex characters (e.g., those with multiple or conflicting motivations) develop over the course of a text, interact with other characters, and advance the plot or develop the theme.
- Students will initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grades 9–10 topics, texts, and issues*, building on others' ideas and expressing their own clearly and persuasively.
- Students can delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.

ULA 2 -Literature of Identity and Community

Course number:0051

- Students will be able to cite strong and thorough textual evidence to support their analysis. Students will draw explicit and implicit conclusions.
- Students will be able to read a text, and determine the theme or central idea by using evidence that provides a complex account of the interactions within the text.
- Students will be able to determine the meaning of words and phrases in a text by developing an understanding of figurative language, connotative, and technical meanings. Students will then be able to analyze how meaning impacts the text.
- Students will be able to engage in the writing process following the steps of planning, revising, editing, rewriting, or addressing what elements appeal to the audience at hand.
- Students will be able to effectively gather, synthesize, and integrate multiple forms of sources to support a claim.
- Students will be able to effectively initiate and participate in collaboration in various forms and sizes of classroom discussions.
- Students will be able to present information, findings, and supporting evidence, conveying a clear and distinct perspective for both formal and informal tasks.
- Students will be able to demonstrate a command of standard English conventions/grammar when writing and speaking.
- Students will develop positive social identities based on their membership in multiple groups in society.
- Students will develop language and historical and cultural knowledge that affirm and accurately describe their membership in multiple identity groups.
- Students will recognize that people's multiple identities interact and create unique and complex individuals.
- Students will develop language and knowledge to accurately and respectfully describe how people (including themselves) are both similar to and different from each other and others in their identity groups.
- Students will respectfully express curiosity about the history and lived experiences of others and will exchange ideas and beliefs in an open-minded way.

ULA 3 -Logic and Argument

Course number:0052

- Students will conduct effective research to support writing, answer a question, or solve a problem.
- Students will write clear and well-constructed arguments.
- Students will write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- Students will gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.
- Students will analyze the purpose behind a particular text based on specific evidence.
- Students will initiate and participate effectively in a range of collaborative discussions.
- Students will propel conversations by posing and responding to questions that probe reasoning and evidence.
- Students will present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

ULA 4- Crime in Literature and Nonfiction

Course number:0053

- Students will be able to cite strong and thorough textual evidence to support their analysis. Students will draw explicit and implicit conclusions.
- Students will be able to read a text, and determine the theme or central idea by using evidence that provides a complex account of the interactions within the text.
- Students will be able to determine the meaning of words and phrases in a text by developing an understanding of figurative language, connotative, and technical meanings. Students will then be able to analyze how meaning impacts the text.
- Students will be able to engage in the writing process following the steps of planning, revising, editing, rewriting, or addressing what elements appeal to the audience at hand.
- Students will be able to effectively gather, synthesize, and integrate multiple forms of sources to support a claim.
- Students will be able to effectively initiate and participate in collaboration in various forms and sizes of classroom discussions.
- Students will be able to present information, findings, and supporting evidence, conveying a clear and distinct perspective for both formal and informal tasks.
- Students will be able to demonstrate a command of standard English conventions/grammar when writing and speaking.
- Students will develop positive social identities based on their membership in multiple groups in society.
- Students will develop language and historical and cultural knowledge that affirm and accurately describe their membership in multiple identity groups.
- Students will recognize that people's multiple identities interact and create unique and complex individuals.
- Students will develop language and knowledge to accurately and respectfully describe how people (including themselves) are both similar to and different from each other and others in their identity groups.
- Students will respectfully express curiosity about the history and lived experiences of others and will exchange ideas and beliefs in an open-minded way.

ULA 5- The Literature of War and Conflict

Course number:2036

- Students will be able to cite strong and thorough textual evidence to support their analysis. Students will draw explicit and implicit conclusions.
- Students will be able to read a text, and determine the theme or central idea by using evidence that provides a complex account of the interactions within the text.
- Students will be able to determine the meaning of words and phrases in a text by developing an understanding of figurative language, connotative, and technical meanings. Students will then be able to analyze how meaning impacts the text.
- Students will be able to engage in the writing process following the steps of planning, revising, editing, rewriting, or addressing what elements appeal to the audience at hand.
- Students will be able to effectively gather, synthesize, and integrate multiple forms of sources to support a claim.
- Students will be able to effectively initiate and participate in collaboration in various forms and sizes of classroom discussions.
- Students will be able to present information, findings, and supporting evidence, conveying a clear and distinct perspective for both formal and informal tasks.
- Students will be able to demonstrate a command of standard English conventions/grammar when writing and speaking.
- Students will develop positive social identities based on their membership in multiple groups in society.
- Students will develop language and historical and cultural knowledge that affirm and accurately describe their membership in multiple identity groups.
- Students will recognize that people's multiple identities interact and create unique and complex individuals.
- Students will develop language and knowledge to accurately and respectfully describe how people (including themselves) are both similar to and different from each other and others in their identity groups.
- Students will respectfully express curiosity about the history and lived experiences of others and will exchange ideas and beliefs in an open-minded way.

ULA 6-Science-Fiction and the Literature of the Imagination

Course number:004S1

- Students will be able to cite strong and thorough textual evidence to support their analysis. Students will draw explicit and implicit conclusions.
- Students will be able to read a text, and determine the theme or central idea by using evidence that provides a complex account of the interactions within the text.
- Students will be able to determine the meaning of words and phrases in a text by developing an understanding of figurative language, connotative, and technical meanings. Students will then be able to analyze how meaning impacts the text.
- Students will be able to engage in the writing process following the steps of planning, revising, editing, rewriting, or addressing what elements appeal to the audience at hand.
- Students will be able to effectively gather, synthesize, and integrate multiple forms of sources to support a claim.
- Students will be able to effectively initiate and participate in collaboration in various forms and sizes of classroom discussions.
- Students will be able to present information, findings, and supporting evidence, conveying a clear and distinct perspective for both formal and informal tasks.
- Students will be able to demonstrate a command of standard English conventions/grammar when writing and speaking.
- Students will develop positive social identities based on their membership in multiple groups in society.
- Students will develop language and historical and cultural knowledge that affirm and accurately describe their membership in multiple identity groups.
- Students will recognize that people's multiple identities interact and create unique and complex individuals.
- Students will develop language and knowledge to accurately and respectfully describe how people (including themselves) are both similar to and different from each other and others in their identity groups.
- Students will respectfully express curiosity about the history and lived experiences of others and will exchange ideas and beliefs in an open-minded way.

AP Language and Composition

Course number: 115

<https://apcentral.collegeboard.org/courses/ap-english-language-and-composition/course>

AP English Literature and Composition

Course number: 007

<https://apcentral.collegeboard.org/courses/ap-english-literature-and-composition/course>

Film Analysis

Course number: 006

- Students will draw evidence from literary or informational texts to support analysis, reflection, and research
- Students will write clear and well-constructed arguments.
- Students will initiate and participate effectively in a range of collaborative discussions
- Students will propel conversations by posing and responding to questions that probe reasoning and evidence.
- Students will determine two or more themes or central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to produce a complex account; provide an objective summary of the text.
- Students will analyze the impact of the author's choices regarding how to develop and relate elements of a story or drama (e.g., where a story is set, how the action is ordered, how the characters are introduced and developed).
- Students will analyze how an author's choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.

Introduction to Journalism

Course number: 013

- Students will be able to determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.
- Students will analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.
- Students will be able to analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).
- Students will be able to write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- Students will be able to develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 9–10.)
- Students will be able to use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
- Students will initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners building on others' ideas and expressing their own clearly and persuasively.
- Students will adapt speech to a variety of contexts and tasks, such as conducting interviews, participating in public performances, or debating an issue from either side, demonstrating a command of formal English when indicated or appropriate. (See grades 11–12 Language standards 1 and 3 for specific expectations.)
- Students will apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

Publications (Yearbook-focus)

Course number: 408

- Students will be able to demonstrate command of the conventions of standard English capitalization, punctuation,

and spelling when writing.

- Students will be able to apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
- Students will be able to produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- Students will be able to develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 9–10.)
- Students will be able to use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
- Students will initiate and participate effectively in a range of collaborative discussions (one–on–one, in groups, and teacher–led) with diverse partners building on others' ideas and expressing their own clearly and persuasively.
- Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

Publications (Newspaper-focus)

Course number: 014S1

- Students will be able to demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
- Students will be able to apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
- Students will be able to produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- Students will be able to develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 9–10.)
- Students will be able to use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
- Students will initiate and participate effectively in a range of collaborative discussions (one–on–one, in groups, and teacher–led) with diverse partners building on others' ideas and expressing their own clearly and persuasively.
- Adapt speech to a variety of contexts and tasks, such as conducting interviews, participating in public performances, or debating an issue from either side, demonstrating a command of formal English when indicated or appropriate. (See grades 11–12 Language standards 1 and 3 for specific expectations.)
- Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.
- Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.

- Students will engage and orient the reader by setting out a problem, situation, or observation and its significance, establishing one or multiple point(s) of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.
- Students will use narrative techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, and/or characters.
- Students will use a variety of techniques to sequence events so that they build on one another to create a coherent whole and build toward a particular tone and outcome (e.g., a sense of mystery, suspense, growth, or resolution).
- Students will use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters.
- Students will provide a conclusion that follows from and reflects on what is experienced, observed, or resolved over the course of the narrative.
- Students will develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 up to and including grades 11–12)
- Students will analyze how an author’s choices concerning how to structure specific parts of a text (e.g., the choice of where to begin or end a story, the choice to provide a comedic or tragic resolution) contribute to its overall structure and meaning as well as its aesthetic impact.

Composition I - KCC

Course number: 753

****Kirkwood writes their own student learning outcomes and competencies for Comp, and they are:**

Upon completion of this course students will be able to:

- Demonstrate command of Standard English.
- Develop critical reading, writing, and thinking skills about texts and ideas, based on thorough analysis.
- Employ a writing process that includes invention, multiple drafts, workshopping, global revision, and editing.
- Design writing that is well adapted for a particular audience and purpose.
- Write organized, focused expository essays with structured paragraphs and clear theses.
- Develop effective supporting evidence, integrating and documenting sources using MLA citation.
- Identify and incorporate language and style options, such as vocabulary, word choice, figurative meaning, conciseness, emphasis, parallelism, and voice, into writing.

Composition II - KCC

Course number: 753S2

****Kirkwood writes their own student learning outcomes and competencies for Comp, and they are:**

Upon completion of this course students will be able to:

- Demonstrate command of Standard English.
- Design writing that is well adapted for a particular audience and purpose.
- Summarize and analyze the arguments of others.
- Write logical arguments that state claims clearly and provide sufficient evidence.
- Integrate information from appropriate sources into writing tasks.
- Execute proper MLA documentation.

Reading Strategies I

Course number: 498

- Students will use context and roots to help determine vocabulary meaning
- Students will read appropriately leveled text to increase fluency and comprehension
- Students will study vocabulary to increase reading comprehension
- Students will practice summarizing, paraphrasing, and responding to reading in order to increase comprehension
- Students will use both fiction and nonfiction texts to practice reading strategies
- Students will respond in writing to texts to help increase reading comprehension and writing skills.

● **Reading Strategies II**

Course number: 498

- Students will use context and roots to help determine vocabulary meaning
- Students will read appropriately leveled text to increase fluency and comprehension
- Students will study vocabulary to increase reading comprehension
- Students will practice summarizing, paraphrasing, and responding to reading in order to increase comprehension
- Students will use both fiction and nonfiction texts to practice reading strategies
- Students will respond in writing to texts to help increase reading comprehension and writing skills.

MATHEMATICS

Math Skills

Course number: 597

Algebra I Daily

Course number: 038

- Students will write, evaluate, and represent algebraic expressions as verbal rules, equations, tables, and graphs.
- Students will write, solve and graph equations and inequalities in one variable.
- Students will write, solve and graph equations and inequalities in two or more variables.
- Students will graph linear equations and use them to solve real-world problems. Making use of slope-intercept form, point-slope form, and standard form.
- Students will solve linear systems of equations and inequalities by graphing and by using algebra.
- Students will apply the properties of exponents to simplify expressions and graph exponential growth and decay functions.
- Students will add, subtract, multiply, and factor polynomials.
- Students will solve quadratic equations by graphing, finding square roots, completing the square, factoring, and the quadratic equation.
- Students will analyze data and interpret the information through a variety of data displays.
- Students will find probabilities of simple events.

CORE Geometry

Course number: 047

- Students will know important Geometry definitions, naming conventions, how to set up and solve equations given segments and angles, and understand important concepts dealing with foundations of geometry.
- Students will learn properties and theorems involving vertical angles, the intersections of a transversal and parallel lines, and points on a perpendicular bisector.
- Students will learn properties and theorems concerning triangles which include measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
- Students will learn how to calculate the equation of a line parallel or perpendicular to a given line that passes through a given point.
- Students will learn properties and theorems concerning the use of congruence and similarity for triangles to solve problems and to prove relationships in geometric figures.
- Students will learn properties and theorems concerning parallelograms which include the following: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.
- Students will learn how to use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.
- Students will learn how to describe the definition of congruence using transformations.
- Students will learn how to calculate the area of a circle, area of a sector, and arc length
- Students will learn how to calculate the perimeters and areas of polygons.
- Students will learn how to use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.
- Students will learn about the properties and theorem concerning the relationships found within circles.
- Students will be able to describe the probability of an event that is likely to occur.

Core Algebra II

Course number: 042

- Students will solve quadratic equations with real coefficients that have complex solutions.
- Students will interpret simple and complicated expressions that represent a quantity in terms of its context.
- Students will identify solutions of polynomial equations when suitable factorizations are available, and use the solutions to construct a rough graph of the function.
- Students will create equations and inequalities in multi-variables and use them to solve problems.
- Students will create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
- Students will use Algebra principles to rearrange formulas that highlight a quantity of interest, using the same reasoning as in solving equations.
- Students will identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs.
- Students will solve simple rational and radical equations in one variable.
- Students will solve systems of equations and understand the importance of the solutions using graphs, tables, and graphing technology.
- Students will interpret key features like intercepts, slopes, maximums, and minimums of a graph.
- Students will write a function expressed by an expression in different but equivalent forms to reveal and explain different properties of the function. For example, factoring and completing the square.

Algebra I

Course number: 039

- Students will write, evaluate, and represent algebraic expressions as verbal rules, equations, tables, and graphs.
- Students will write, solve and graph equations and inequalities in one variable.
- Students will write, solve and graph equations and inequalities in two or more variables.
- Students will graph linear equations and use to solve real-world problems. Making use of slope-intercept form, point-slope form, and standard form.
- Students will solve linear systems of equations and inequalities by graphing and by using algebra.
- Students will apply the properties of exponents to simplify expressions and graph exponential growth and decay functions.
- Students will add, subtract, multiply, and factor polynomials.
- Students will solve quadratic equations by graphing, finding square roots, completing the square, factoring, and the quadratic equation.
- Students will analyze data and interpret the information through a variety of data displays.
- Students will find probabilities of simple events.

Geometry

Course number: 040

- Students will know important Geometry definitions, naming conventions, how to set up and solve equations given segments and angles, and understand important concepts dealing with foundations of geometry.
- Students will learn properties and theorems involving vertical angles, the intersections of a transversal and parallel lines, and points on a perpendicular bisector.
- Students will learn properties and theorems concerning triangles which include measures of interior angles of a triangle sum to 180° ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
- Students will learn how to calculate the equation of a line parallel or perpendicular to a given line that passes through a given point.
- Students will learn properties and theorems concerning the use of congruence and similarity for triangles to solve problems and to prove relationships in geometric figures.
- Students will learn properties and theorems concerning parallelograms which include the following: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.
- Students will learn how to use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.
- Students will learn how to describe the definition of congruence using transformations.
- Students will learn how to calculate the area of a circle, area of a sector, and arc length
- Students will learn how to calculate the perimeters and areas of polygons.
- Students will learn how to use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.
- Students will learn about the properties and theorems concerning the relationships found within circles.
- Students will be able to describe the probability of an event is likely to occur.

- Students will solve quadratic equations by graphing, finding square roots, completing the square, and the quadratic equation, while using complex numbers.
- Students will add, subtract, multiply, and divide polynomials and solve polynomial equations by finding their zeros.
- Students will graph, solve, and perform function operations with rational exponents.
- Students will graph and interpret exponential growth and decay models, and solve and evaluate logarithmic functions and functions involving e.
- Students will graph, perform operations, and solve rational equations.
- Students will analyze and interpret data using normal distribution, combinations, and surveys.
- Students will analyze arithmetic and geometric sequences and series.
- Students will evaluate trigonometric functions of right triangles and any angle, including the Law of Sines and Law of Cosines.

Statistics

Course number: 419

- Students will collect, analyze, organize, and display meaningful data.
- Students will determine mean, median, mode, and standard deviation of data.
- Students will solve basic probability problems using conditional probability, multiplication rule, addition rule, and combinations and permutations.
- Students will evaluate, graph, and interpret different types of distributions including: discrete, binomial, geometric, and poisson.
- Students will study the standard normal distribution curve and how it applies to confidence intervals and hypothesis testing.
- Students will determine when to use z-scores, t-values, and χ^2 -values, and apply them properly to confidence intervals and hypothesis testing.

Statistics II

Course number: 419S2

- Students will collect, analyze, organize, and display meaningful data.
- Students will determine mean, median, mode, and standard deviation of data.
- Students will solve basic probability problems using conditional probability, multiplication rule, addition rule, and combinations and permutations.
- Students will evaluate, graph, and interpret different types of distributions including: discrete, binomial, geometric, and poisson.
- Students will study the standard normal distribution curve and how it applies to confidence intervals and hypothesis testing.
- Students will determine when to use z-scores, t-values, and χ^2 -values, and apply them properly to confidence intervals and hypothesis testing.

Trigonometry Pre-Calculus

Course number: 042

- Students will graph functions by hand or with graphing technology. Graph rational functions, identifying zeros and asymptotes by using appropriate methods, and showing end behavior
- Students will compose functions by substitution one function into another function. For example, if $T(y)$ is the temperature in the atmosphere as a function of height, and $h(t)$ is the height of a weather balloon as a function of time, then $T(h(t))$ is the temperature at the location of the weather balloon as a function of time.
- Students will find inverse functions. Verify by composition that one function is the inverse of another. Read the values of an inverse function from a graph or a table, given that the function has an inverse.
- Students will understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.
- Students will use special triangles and the unit circle to determine geometrically the values of sine, cosine, and tangent.
- Students will use inverse trigonometric functions to solve equations that arise in real-life situations.
- Students will prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.
- Students will derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.

AP Calculus AB

Course number: 043

<https://apcentral.collegeboard.org/pdf/ap-calculus-ab-and-bc-course-and-exam-description.pdf>

INSTRUMENTAL MUSIC

Concert Band/Marching Band

Course number: 044

- Students will perform expressively with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context
- Students will listen, identify and evaluate specific criteria in an instrumental performance (tone quality, intonation, rhythm, balance/blend, dynamics/musicianship/interpretation)
- Students will demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts, and daily life
- Students will exhibit proper breath support, embouchure, hand position, posture, and articulators

Music Theory I (10-12) one semester (1st semester only)

Course number: 056

- Students will organize and Develop artistic ideas and work
- Students will refine and complete artistic work
- Students will perceive and analyze artistic work
- Students will support Evaluations of musical works and performances

Music Theory II (10-12) one semester (2nd semester only)

Course number 056

- Students will continue to explore and delve deeper into the essentials of Music Theory 1

Advanced Instrumental Techniques (10-12) one semester

Course number 048

- Students will evaluate and refine personal and ensemble performances, individually or in collaboration with others
- Students will express musical ideas, analyze, evaluate, and refine their performance over time through openness to new ideas, persistence, and the application of appropriate criteria
- Students will judge performance based on criteria that vary across time, place, and cultures. The context and how a work is presented influence audience response

VOCAL MUSIC

Voce

Course number: 046

- Students will select, analyze, and interpret artistic work for presentation
- Students will generate and conceptualize artistic ideas and work
- Students will refine and complete artistic work
- Students will synthesize and relate knowledge and personal experience to make art
- Students will perceive and analyze artistic work
- Students will apply criteria to evaluate artistic work
- Students will develop and refine artistic techniques and work for presentation
- Students will convey meaning through the presentation of artistic work
- Students will relate artistic ideas and works with societal cultural, and historical context to deepen understanding

Cantores

Course number: 046A

- Students will select, analyze, and interpret artistic work for presentation
- Students will generate and conceptualize artistic ideas and work
- Students will refine and complete artistic work
- Students will synthesize and relate knowledge and personal experience to make art
- Students will perceive and analyze artistic work
- Students will apply criteria to evaluate artistic work
- Students will develop and refine artistic techniques and work for presentation
- Students will convey meaning through the presentation of artistic work
- Students will relate artistic ideas and works with societal cultural, and historical context to deepen understanding

Lyrice

Course number: 046WC

- Students will select, analyze, and interpret artistic work for presentation
- Students will generate and conceptualize artistic ideas and work
- Students will refine and complete artistic work
- Students will synthesize and relate knowledge and personal experience to make art
- Students will perceive and analyze artistic work
- Students will apply criteria to evaluate artistic work
- Students will develop and refine artistic techniques and work for presentation
- Students will convey meaning through the presentation of artistic work
- Students will relate artistic ideas and works with societal cultural, and historical context to deepen understanding

Musical Theatre (first semester only)

Course number: 044

- Students will select, analyze, and interpret artistic work for presentation
- Students will generate and conceptualize artistic ideas and work
- Students will refine and complete artistic work
- Students will synthesize and relate knowledge and personal experience to make art
- Students will perceive and analyze artistic work
- Students will apply criteria to evaluate artistic work
- Students will develop and refine artistic techniques and work for presentation
- Students will convey meaning through the presentation of artistic work
- Students will relate artistic ideas and works with societal cultural, and historical context to deepen understanding

PHYSICAL EDUCATION

Physical Education

Course number: 052

- Students will use skills in complex rather than modified versions of physical activities.
- Students will develop lifetime fitness skills.
- Students will understand biomechanical concepts that control different types of movement.
- Students will understand, apply, and utilize various physical activities involving fitness and wellness.
- Students will participate regularly in health-enhancing physical activities.
- Students will be able to achieve and maintain personal health and fitness goals.
- Students will be able to maintain target heart rate and can achieve cardiovascular benefits.
- Students will work with others in a sport activity to achieve a common goal.
- Students will make choices based on safety of self and others.
- Students will respect the physical differences and performance limitations of others.
- Students will interact respectfully with others of different ethnicity and gender as well as those with different physical abilities.
- Students will feel satisfied after engaging in physical activities.
- Students will enjoy learning new activities and participates for personal enjoyment.

Advanced Physical Education

Course number: 053

- Students will demonstrate competency in 2 or more specialized skills in health-related fitness activities.
- Students will demonstrate movement concepts, principles & knowledge and apply the terminology associated with exercise and participation in selected individual-performance activities.
- Students will demonstrate movement concepts, principles & knowledge
- Students will use movement concepts and principles (e.g., force, motion, rotation) to analyze, and improve performance of self and/or others in a selected skill.
- Students will demonstrate physical activity knowledge and evaluate risks and safety factors that might affect physical activity preferences throughout the life cycle.
- Students will demonstrate appropriate technique in resistance training with machines, free weights, bands, and or other training implements.
- Students will identify types of strength exercises (isometric, concentric, eccentric) and stretching exercises (static, proprioceptive neuromuscular facilitation (PNF), dynamic) for personal fitness development (e.g., strength, endurance, range of motion).

Personal Fitness

Course number: 054

- Students will perform a variety of motor skills to guide them to be physically active for a lifetime.
- Students will be exposed to all different forms of activity to benefit their overall wellness.
- Students will use their experiences using heart rate monitors to provide them with a foundational understanding of what it takes to get in their ‘target heart zone.’
- Students will exhibit responsible behavior when being physically active with their peers. Students will understand reasonable sportsmanship, motivation, and leadership in group and individual settings.

Unified PE

Course Number: 055

- Students will apply their knowledge of various movements to attempt new methods of physical activities.
- Students will adapt to changes and focus on improving their physical and social skills throughout the entire semester.
- Students will work together and collaborate with one another in a diverse setting.
- Students will participate with peers of different backgrounds and physical, mental, and social needs.
- Students will take the necessary means and communicate effectively with all classmates during physical activity.
- Students will recognize the value of diversity in physical education and value the concept of inclusion.

Cardio Fitness

Course number: 02014

- Students will perform a variety of motor skills to guide them to be physically active for a lifetime. Students will be exposed to all different forms of activity to benefit their overall wellness.
- Students will use their experiences using heart rate monitors to provide them with a foundational understanding of what it takes to get in their ‘target heart zone.’
- Students will exhibit responsible behavior when being physically active with their peers. Students will understand reasonable sportsmanship, motivation, and leadership in group and individual settings.

Health

Course number: 051

- Students will use the knowledge base to adapt their lifestyle to foster a healthy future in their mental, emotional, social, physical, and environmental health.
- Students will use critical thinking skills to guide and evaluate decisions in relation to disease and injury prevention, as well as risk avoidance.
- Students will develop behaviors and/or goals related to optimal health in the future.

SCIENCE

Earth Science

Course Number: 067

- Students will use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate.
- Students will plan and conduct an investigation of the properties of water and its effects on Earth's materials and surface processes.
- Students will develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.
- Students will construct an argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth.
- Students will construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.
- Students will create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.
- Students will evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
- Students will analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change.
- Students will use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.

Biology

Course number: 061

- Students will construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.
- Students will use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.
- Students will use mathematical and/or computational representations to support explanations of factors that affect the carrying capacity of ecosystems at different scales.
- Students will use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.
- Students will develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere. Students will design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
- Students will design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
- Students will evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.
- Students will ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.
- Students will make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.
- Students will communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.
- Students will construct an explanation based on evidence for how natural selection leads to adaptation of populations.
- Students will evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.

Conceptual Chemistry

Course number: 060S1

- Students will use the periodic table as a model to predict the relative properties of elements based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.
- Students will construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.
- Students will use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.
- Students will create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other components and energy flows in and out of the system are known.

Conceptual Physics

Course number: 060S2

- Students will analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.
- Students will use mathematical representations to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system.
- Students will apply science and engineering ideas to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision.
- Students will create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.
- Students will develop and use models to illustrate that energy at the macroscopic scale can be accounted for as a combination of energy associated with the motion of particles (objects) and energy associated with the relative positions of particles (objects).
- Students will design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.
- Students will use mathematical representations to support a claim regarding relationships among the frequency, wavelength, and speed of waves traveling in various media.
- Students will evaluate questions about the advantages of using digital transmission and storage of information.
- Students will communicate technical information about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy.

Chemistry

Course number: 062

- Students will use the periodic table as a model to predict the relative properties of elements based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.
- Students will construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.
- Students will use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.
- Students will use mathematical representations to support a claim regarding relationships among the frequency, wavelength, and speed of waves traveling in various media.
- Students will create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other components and energy flows in and out of the system are known.
- Students will develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.
- Students will apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs.
- Students will define the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium.

Chemistry II

Course number: 300

- Students will understand the relationship among pressure, temperature, volume, and phase.
- Students will analyze chemical reactions in terms of quantities, product formation, and energy.
- Students will understand the factors affecting rate of reaction and chemical equilibrium.
- Students will understand solutions and the solution process.
- Students will understand acid and base chemistry.

Physics

Course number: 063

- Students will analyze data to support the claim that Newton's second law of motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration.
- Students will use mathematical representations to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system.
- Students will apply science and engineering ideas to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision.
- Students will create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.
- Students will develop and use models to illustrate that energy at the macroscopic scale can be accounted for as a combination of energy associated with the motion of particles (objects) and energy associated with the relative positions of particles (objects).
- Students will design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.
- Students will use mathematical representations to support a claim regarding relationships among the frequency, wavelength, and speed of waves traveling in various media.
- Students will evaluate questions about the advantages of using digital transmission and storage of information.
- Students will communicate technical information about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy.

Anatomy & Physiology

Course number: 064

- Students will learn the organization of the body which includes the human body, anatomical terms, body cavities, membranes, organ systems, and homeostasis.
- Students will learn about the body tissues and membranes, including epithelial tissue, connective tissue, muscular tissue, and nervous tissue.
- Students will learn about the integumentary system, including the structure of skin, accessory structures of skin, disorders of the skin, and the effects of aging.
- Students will learn about the skeletal system, including the axial skeleton, appendicular skeleton, joints, and the effects of aging.
- Students will learn about the muscular system, including the functions and types of muscles, contraction of skeletal muscles, muscle responses, skeletal muscles of the body and the effects of aging.
- Students will learn about the nervous system, including the central nervous system, peripheral nervous system, and the effects of aging.
- Students will learn about the cardiovascular system, including the anatomy of the heart, the physiology of the heart, anatomy of blood vessels, physiology of circulation, circulatory routes, and the effects of aging.
- Students will learn about the blood, including the composition and function of blood, components of blood, platelets and hemostasis, blood typing and transfusions, and the effects of aging.
- Students will learn about the respiratory system, including the mechanism of breathing, gas exchange and transport, respiration and health, and the effects of aging.
- Students will learn about the digestive system, including the anatomy of the digestive system, accessory organs of digestion, chemical digestion, and the effects of aging.
- Students will learn about the reproductive system, including the human life cycle, male and female reproductive system, control of reproduction and sexually transmitted diseases, and the effects of aging.

AP Biology

Course Number: 116

SOCIAL STUDIES

Social Studies Survey

Course number: 072

- Students will be able to identify and describe the impact culture has on institutions and society.
- Students will be able to identify various types of governments and their methods for maintaining order/control over people.
- Students will be able to explain migration patterns as it relates to ancient history and its effect on future societies.
- Students will be able to demonstrate various methods on about how people expanded systems of power to maintain order/control.
- Students will be able to explain how varying perspectives of individuals impacted societies in world history.
- Students will be able to identify and explain the causes and effects of historical events in world history - and its impact on the future.

Introduction to Sociology

Course number: 258

- Students will be able to recognize how interactions between groups of people are similar or different, and how they impact others.
- Students will be able to identify factors that lead to continuity and change, within group behavior.
- Students will be able to apply appropriate research skills in observation and research writing.

American History

Course number: 073

- Students will analyze how diverse ideologies impacted political and social institutions during eras such as Reconstruction, the Progressive Era, and the Civil Rights movement.
- Students will evaluate the impact of gender roles on economic, political, and social life in the U.S.
- Assess the impact of individuals and reform movements on changes to civil rights and liberties. (21st-century skills)
- Students will examine labor and governmental efforts to reform and/or maintain a capitalistic economic system in the Great Depression.
- Students will analyze the effects of urbanization, segregation, and voluntary and forced migration within the regions of the US on social, political, and economic structures.
- Students will examine how imperialism changed the role of the United States on the world stage prior to World War I.
- Students will analyze the growth of and challenges to U.S. involvement in the world in the post-World War II era.
- Students will analyze change, continuity, and context across eras and places of study from the civil war to modern America.
- Students will evaluate the impact of inventions and technological innovations on the American society and culture.
- Students will critique primary and secondary sources of information with attention to the source of the document, its context, accuracy, and usefulness
- Students will analyze how regional, racial, ethnic and gender perspectives influenced American history and culture.
- Students will determine multiple and complex causes and effects of historical events in American history including, but not limited to, the Civil War, World War I and II, the Korean War and the Vietnam War.

AP U.S. History

Course numbers: 261

Introduction to Psychology

Course number: 074

- Students will investigate human behavior from biological, cognitive, behavioral, and sociocultural perspectives.
- Students will demonstrate a basic understanding of the scientific methods that are at the core of psychology.
- Students will evaluate and utilize theories and methodologies, necessary to plan, conduct, and especially interpret research results.
- Students will explain how the validity and reliability of observations and measurements relate to data analysis.
- Students will apply the major theoretical approaches and perspectives in behavioral science to our daily lives and civic engagement.

Economics

Course number: 305

- Students will apply the concept of scarcity when making economic decisions.
- Students will use cost-benefit analysis to argue for or against an economic decision.
- Students will analyze what goes into determining, and who determines, what is produced and distributed in a market system.
- Students will describe how changes in the level of competition can affect price and output levels in specific markets.
- Students will explain how changes in supply and demand cause changes of goods and services, labor, credit, and foreign currencies.
- Students will evaluate the effectiveness of government policies altering market outcomes.
- Students will describe the roles of institutions such as clearly defined property rights and the rule of law in a market economy.
- Students will use economic indicators to evaluate economic conditions.
- Students will explain why advancements in technology and investments in capital goods and human capital increases economic growth and standards of living.
- Students will explain the role of specialization in trade.

Eastern Cultures

Course number: 078

- Students will be able to identify and describe spatial relationships between humans and their environmental characteristics
- Students will be able to explain migration patterns as it relates to ancient history and its effect on future societies.
- Students will be able to assess the impact and relationship between the diffusion ideas, technology, cultural practices in urban, suburban and rural regions.
- Students will be able to demonstrate the impact of economic globalization of scarce resources as it relates to conflict and cooperation in and among countries.
- Students will be able to analyze env. interactions within and between humans and physical systems and how they influence each other. Along with how env. and culture influence political and economic decisions.
- Students will be able to explain how varying perspectives of individuals impacted societies in world history.
- Students will be able to identify and explain the causes and effects of historical events in world history - and its impact on the future.

Modern Political Controversies

Course Number: 076

- Students will investigate how their own moral compass was formed throughout their lives; dissecting at every turn why they feel the way they do and think the way they think about certain issues. Throughout the class, students will fine tune their own moral compass and understand with exceeding confidence why they believe what they believe and act the way they act.
- Students will learn how to live peacefully in a world with opposing viewpoints on controversial issues.
- Students will build a positive discussion environment by creating a set of classroom rules with guidance from teacher. They will then self-regulate and enforce those rules throughout the semester. Discussion rules will be based on respecting diverse opinions, backing up opinions with reasoning and evidence, patience, tolerance, and kindness.
- Students will learn about controversial issues (abortion, death penalty, gun laws, LGBT rights, Immigration) - taking careful consideration to cover both the liberal and conservative side of each topic.
- Students will write arguments focused on discipline-specific content.
- Students will introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.
- Students will develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a disciplined appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.
- Students will use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
- Students will establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- Students will provide a concluding statement or section that follows from or supports the argument presented.
- Students will conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- Students will gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
- Students will draw evidence from informational texts to support analysis, reflection, and research.

Contemporary U.S. History

Course number: 03003

- Examine Factors that Led to Continuity and Change in Human and Group Behavior
- Recognize the Interaction Between Individuals and Various Groups
- Apply Civic Virtues and Democratic Principles
- Evaluate the National Economy
- Analyze Human Population Movement and Patterns
- Analyze Global Interconnections
- Analyze Change, Continuity, and Context
- Critique Historical Sources and Evidence
- Compare Perspectives

Street Law

Course numbers: 262

- Students will create compelling questions representing key ideas within the disciplines.
- Students will develop supporting questions that contribute to an inquiry and demonstrate how, through engaging source work, new compelling and supporting questions emerge.
- Students will evaluate the credibility of a source by examining how experts value the source.
- Students will identify evidence that draws information directly and substantively from multiple sources to detect inconsistencies in evidence in order to revise or strengthen claims.
- Students will evaluate how the U.S. Constitution establishes the Rule of Law, governmental powers and responsibilities, as well as limits to a government. (21st century skills)
- Students will evaluate multiple procedures for making governmental decisions at the local, state, national, and international levels. (21st century skills)
- Students will analyze how people use and challenge public policies through formal and informal means with attention to important judicial processes and landmark court cases. (21st century skills)
- Students will analyze relationships and interactions within and between human and physical systems to explain reciprocal influences.
- Students will analyze how environmental and cultural characteristics of various places and regions influence political and economic decisions.

American Government

Course number: 077

- Students can evaluate and explain the relationships among the branches of government, including federalism, separation of powers, the supremacy clause, the necessary and proper clause, judicial review, executive privilege, pocket veto, executive orders, quorum, filibuster, and other related topics.
- Students can critique the influence of intermediary institutions on government and policy such as, interest groups, political parties, the mass media, campaigns, caucuses, elections, PACs, and local, state, tribal, and international organizations.
- Students can evaluate the effectiveness of political action in changing government and policy, such as voting, debate, contacting officials, campaign contributions, protest, civil disobedience, and any alternative methods to participation.
- Students can explain the significance of civic values to a well-functioning democracy including concepts such as conviction vs. compromise, majority rule vs. minority rights, state interests vs. individual interests, rights vs. responsibilities, and other related topics.
- Students can explain the mechanisms of political socialization in American democracy such as the effects of the family, school, community, and media in influencing one's political decisions.
- Students can evaluate multiple procedures for making governmental decisions at the local, state, national, and international levels.
- Students can analyze how people use and challenge public policies through formal and informal means with attention to important judicial processes and landmark court cases.
- Students can analyze the historical, contemporary, and emerging patterns of political action and activism including voter demographics, party trends over time, polling data, campaign strategies and trends, and alternative means of participating.

WORLD LANGUAGES

German I

Course number: 085

- Students will carry on a short conversation about personal interests including what they are doing and are going to do.
- Students will ask and answer simple questions using practiced patterns.
- Students will state personal preferences and feelings.
- Students will express agreement and disagreement using memorized expressions.
- Students will read and respond to level appropriate written materials on familiar topics.
- Students will comprehend the main idea of selected authentic materials.
- Students will understand written and spoken language that has strong visual support.
- Students will identify aural and visual clues within a limited context.
- Students will begin to derive meaning using cognates, context and classroom experience.
- Students will present songs, short poems or dialogs on familiar topics.
- Students will write and present short narratives on familiar topics.
- Students will write short guided compositions on familiar topics.
- Students will observe and imitate patterns of behavior such as greetings, gestures and common interactions.
- Students will identify some common beliefs and attitudes within the cultures studied.
- Students will participate in age-appropriate cultural practices such as songs, games and holidays.
- Students will identify objects and symbols that represent other cultures, such as flags or currency.
- Students will identify and experience contributions from German cultures such as artwork, architecture, music, dance and literature.
- Students will locate, organize and share cultural information from various sources.
- Students will identify and apply within a familiar context, topics and skills from other school subjects such as math, weather, geography, phonics, grammatical structures and reading strategies.
- Students will identify, through world language resources, information usable in other disciplines.
- Students will use authentic sources to identify perspectives of German.
- Students will identify and apply the sound patterns of German and compare them to the student's own language.
- Students will identify and apply structural patterns of German and compare them to the student's own language.
- Students will identify cognates and idiomatic expressions of German.
- Students will identify connections among languages.
- Students will identify the similarities and differences between German cultures and the student's own culture.
- Students will identify similar and different behavioral patterns between German culture and the student's own culture.
- Students will practice key phrases in German with family and peers.
- Students will become aware of and/or participate in outside language opportunities such as camps, immersion weekends, trips and community cultural events.
- Students will expand cultural horizons through the enjoyment of literature, music, art, theater, cuisine and travel.
- Students will use media and technology to remain aware of world events.
- Students will establish and/or maintain interpersonal relations with speakers of the language.

German II

Course number: 086

- Students will carry on a short conversation about personal interests including what they are doing and are going to do.
- Students will ask and answer simple questions using practiced patterns.
- Students will state personal preferences and feelings.
- Students will express agreement and disagreement using memorized expressions.
- Students will read and respond to level appropriate written materials on familiar topics
- Students will comprehend the main idea of selected authentic materials.
- Students will understand written and spoken language that has strong visual support.
- Students will identify aural and visual clues within a limited context.
- Students will begin to derive meaning using cognates, context and classroom experience.
- Students will present songs, short poems or dialogs on familiar topics.
- Students will write and present short narratives on familiar topics.
- Students will write short guided compositions on familiar topics.
- Students will observe and imitate patterns of behavior such as greetings, gestures and common interactions.
- Students will identify some common beliefs and attitudes within the cultures studied.
- Students will participate in age-appropriate cultural practices such as songs, games and holidays.
- Students will identify objects and symbols that represent other cultures, such as flags or currency.
- Students will identify and experience contributions from the target cultures such as artwork, architecture, music, dance and literature.
- Students will locate, organize and share cultural information from various sources.
- Students will identify and apply within a familiar context, topics and skills from other school subjects such as math, weather, geography, phonics, grammatical structures and reading strategies.
- Students will identify, through world language resources, information usable in other disciplines.
- Students will use authentic sources to identify perspectives of German.
- Students will identify and apply the sound patterns of German and compare them to the student's own language.
- Students will identify and apply structural patterns of German and compare them to the student's own language.
- Students will identify cognates and idiomatic expressions of German.
- Students will identify connections among languages.
- Student will identify the similarities and differences between the German speaking cultures and the student's own culture
- Students will identify similar and different behavioral patterns between the German speaking cultures and the student's own culture.
- Students will practice key phrases in the target language with family and peers.
- Students will become aware of and/or participate in outside language opportunities such as camps, immersion weekends, trips and community cultural events.
- Students will expand cultural horizons through the enjoyment of literature, music, art, theater, cuisine and travel.
- Students will use media and technology to remain aware of world events.
- Students will establish and/or maintain interpersonal relations with speakers of German.

German III

Course number: 087

- Students will carry on a short conversation about personal interests including what they have done, are doing and are planning to do.
- Students will ask and answer a variety of questions giving reasons for answers.
- Students will exchange personal preferences and feelings
- Students will express agreement and disagreement.
- Students will read and respond to level-appropriate written
- Students will use appropriate patterns of behavior for daily activities among peers and adults.
- Students will identify some common beliefs and attitudes within the cultures studied and compare them to their own beliefs and attitudes.
- Students will learn about and/or participate in age-appropriate cultural practices, such as songs, games, holidays and school.
- Students will identify and compare objects and symbols from other cultures to those of their own culture.
- Students will identify and experience contributions from the target cultures, such as artwork, architecture, music, dance and literature.
- Students will locate, organize and present cultural information from various sources.
- Students will identify and apply, within a limited context, topics and skills from other school subjects.
- Students will identify and examine information usable for other disciplines, gathered from authentic language resources.
- Students will use authentic sources to identify and examine perspectives of the target culture.
- Students will identify and apply, within limited contexts, the sound patterns of the target language.
- Students will identify and apply structural patterns of German and compare them to the student's own language.
- Students will identify and compare cognates and idiomatic expressions of German and the student's own language.
- Students will identify connections among languages.
- Students will examine the similarities and differences between German cultures and the student's own culture.
- Students will compare and contrast similar and different behavioral patterns between German cultures and the student's own culture.
- Students will use German to communicate through interaction with the internet, pen-pals, community members and guests.
- Students will become aware of and/or participate in outside language opportunities such as camps, immersion weekends, trips and community cultural events.
- Students will expand cultural horizons through the enjoyment of literature, music, art, theater, cuisine and travel.
- Students will use media and technology to remain aware of world events.
- Students will establish and/or maintain interpersonal relations with speakers of the language.

German IV

Course number: 088

- Students will sustain a conversation about themselves on selected topics of interest.
- Students will ask and respond to open-ended questions.
- Students will exchange feelings and ideas of self and others with some explanation.
- Students will express agreement and disagreement with some explanation.
- Students will read and respond to selected materials on a variety of topics.
- Students will read and comprehend the main idea and some supporting details in authentic materials.
- Students will use listening and reading strategies to understand a variety of topics.
- Students will identify and derive meaning from a wider variety of aural, visual and contextual clues.
- Students will present student-created dialogs and skits on an expanding range of topics.
- Students will write and deliver presentations on familiar and unfamiliar topics.
- Students will write compositions with some guidance on a wider variety of topics.
- Students will begin to interact with sensitivity and respect in a variety of contexts that reflect activities within the cultures studied.
- Students will study common beliefs and attitudes and compare them to their own.
- Students will learn about and/or participate in cultural practices such as sports, entertainment and celebrations.
- Students will examine and compare objects and symbols from other cultures to those of their own culture.
- Students will experience and discuss contributions of the cultures such as artwork, architecture, music, dance and literature.
- Students will locate, organize and present cultural information from various sources.
- Students will transfer and apply, within a limited context, information and skills from other school subjects.
- Students will identify and analyze, within a limited context, information usable in other disciplines, gathered through authentic language resources.
- Students will use authentic sources to identify and analyze perspectives of the target cultures.
- Students will apply, in a variety of contexts, the sound patterns of the target language.
- Students will use knowledge of structural patterns in both the target language and the student's own language to communicate effectively.
- Students will compare and contrast cognates and idiomatic expressions of the target language and the student's own language.
- Students will explain the changing nature of languages.
- Students will analyze the similarities and differences between the target cultures and the student's own culture.
- Students will compare and contrast similar different behavioral patterns between the target cultures and the student's own culture.
- Students will carry on conversations with peers and others in the target language.
- Students will seek out and/or participate in outside language opportunities, such as camps, immersion weekends, trips and community cultural events.
- Students will expand cultural horizons through the enjoyment of literature, music, art, theater, cuisine and travel.
- Students will use media and technology to remain aware of world events.
- Students will establish and/or maintain interpersonal relations with speakers of the language

AP German- Language and Culture

Course number: 301

<https://apstudents.collegeboard.org/courses/ap-german-language-and-culture>

Spanish I

Course number: 081

- Students will recognize, respond to, and use vocabulary in a greeting setting.
- Students will use the alphabet to spell.
- Students will understand and respond to basic numbers up through 1,000.
- Students will use basic weather phrases to talk about the weather.
- Students will understand spoken and written time.
- Students will talk about activities, likes and dislikes, and where they are from
- Students will describe themselves, their friends, and their families.
- Students will identify basic colors.
- Students will ask and tell time, say what classes they have, and what they and others have to do.
- Students will use present tense with basic AR verbs.
- Students will ask/answer how they and others are feeling, where they are going, location and relation of objects.
- Students will describe materials for class, my school, and talk about their classes.
- Students will conjugate basic ER/IR verbs.
- Students will talk about food and beverages.
- Students will make basic comparisons.
- Students will talk about family.
- Students will ask and tell about ages and dates.
- Students will talk about clothes and seasons.
- Students will conjugate an E-IE stem-changer.
- Students will conjugate an O-UE stem-changer.
- Students will order from a menu and describe places around town.

Spanish II

Course number: 082

- Students will recognize and respond to vocabulary related to shopping.
- Students will form demonstrative adjectives.
- Students will form prepositional pronouns and recognize when to use them.
- Students will recall basic facts about Puerto Rico.
- Students will conjugate the preterite of estar, poder, poner, saber, tener, querer, venir, traer, decir, and the stem/y changers in the preterite past tense.
- Students will recognize, respond to, and use vocabulary related to cooking, foods and items needed for cooking.
- Students will form adjectives using the -ísimo ending.
- Students will recall basic facts about Spain.
- Students will recognize, respond to, and use affirmative and negative familiar (tú) commands.

Spanish III

Course number: 083

- Students will communicate and exchange information about familiar topics using phrases and simple sentences, sometimes supported by memorized language. Students will usually handle short social interactions in everyday situations by asking and answering simple questions.
- Students will present basic information on familiar topics using language they practiced using phrases and simple sentences.
- Students will understand the main idea in short, simple messages and presentations on familiar topics. I can understand the main idea of simple conversations that I overhear.

Spanish IV

Course number: 084

- Students will tell stories about school and community events and personal experiences, using a few short paragraphs, often across various time frames.
- Students will give detailed presentations on a variety of familiar topics and some concrete topics I have researched, using a few short paragraphs, often across various time frames.
- Students will make comparisons between products and practices to help them understand perspectives.
- Students will interact at a functional level in some familiar contexts.
- Students will converse with peers from the target culture in familiar situations at school, work, or play, and show interest in basic cultural similarities and differences.
- Students will usually follow the main message in various time frames in straightforward, and sometimes descriptive, paragraph length informational texts.
- Students will usually follow the main story and actions expressed in various time frames in paragraph-length fictional texts.
- Students will usually understand the main idea and flow of events expressed in various time frames in conversations and discussions.
- Students will exchange information in conversations and some discussions on a variety of familiar and some concrete topics that they have researched, using connected sentences that may combine to form paragraphs and asking a variety of questions, often across various time frames.
- Students will interact with others to meet my needs in a variety of situations, sometimes involving a complication, using connected sentences that may combine to form paragraphs and asking a variety of questions, often across various time frames.
- Students will explain preferences, opinions, and emotions and provide advice on a variety of familiar and some concrete topics that they have researched, using connected sentences that may combine to form paragraphs and asking a variety of questions, often across various time frames.
- Students will state their viewpoint on familiar or researched topics and provide reasons to support it, using a few short paragraphs, often across various time frames.

Spanish for Native Speakers

Course number: 081