



University High School Course Catalog



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Art Department

Art Fundamentals

AR101/AR102

Lab Fee: \$50.00 per semester

This course is designed to introduce students to the elements of art and principles of design, as they relate to visual composition. This study is approached predominantly through exercise (i.e., hands-on experience), discussion, and analysis. Students will be exposed to a variety of art movements as well as art media. These media include pencil, colored pencil, charcoal, chalk, ink, acrylic and watercolor painting, and other assorted media suitable for working in a two-dimensional format.

CREDIT: 1.0

TYPE: Regular

GRADE: 9-11

COREQUISITES: If you take this course, it is recommended you also take AR102 - Art Fundamentals (Sem2)

Printmaking

AR202

Lab Fee: \$50.00

This one-semester studio course is designed where students learn various types of hand printing processes and press processes, which allow a greater range of two-dimensional expression. Drawing and painting skills will be employed.

This course is offered on an alternating year schedule.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: AR101 - Art Fundamentals (Sem 1) **or** AR102 - Art Fundamentals (Sem2)

Sculpture: A Look at the Third Dimension

AR201

Lab Fee: \$50.00

This one-semester course explores design and construction problems in the areas of sculpture, ceramics, plaster, wood, and other media relevant to a three-dimensional design. Study will be approached through analysis of 3-D forms, readings, reports, and the creation of sculptural forms. Evaluation is based on class involvement, growth, and performance.

This course is offered on an alternating year schedule.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: AR101 - Art Fundamentals (Sem 1) **or** AR102 - Art Fundamentals (Sem2)

AP Art, General Portfolio

AR401/AR402

Lab Fee: \$50.00 per semester

The main objective of Advanced Placement Art is to allow high school students the opportunity of intensive study with a particular medium or subject matter. It is designed to encourage the students to work independently. Students are required to explore design elements within their particular area of interest. College credit is available to students receiving a satisfactory grade on a submitted art portfolio. This course may be repeated for advanced students with teacher approval.

CREDIT: 1.0

TYPE: Advanced Placement

GRADE: 11-12

PREREQUISITE: AR101 - Art Fundamentals (Sem 1) **or** AR102 - Art Fundamentals (Sem2) **or** AR201 - Sculpture: A Look at the Third Dimension **or** AR202 - Printmaking **or** AR301 - Art Appreciation (Sem 1) **or** AR302 - Art Appreciation (Sem 2)
OTHER REQUIREMENTS: Two years of art and approval of instructor. (may be repeated)
COREQUISITES: If you take this course, it is recommended you also take AR402 - AP Art, General Portfolio (Sem 2)

Art Appreciation

AR301/AR302

Lab Fee: \$20.00 per semester

This course is a survey of world art development beginning with the prehistoric period and progressing chronologically through to contemporary. Students are introduced to artworks and artist prominent to various historical periods. Influence on their times and the times on the artists are emphasized. Students will also be producing artwork relevant to the period being covered.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

COREQUISITES: If you take this course, it is recommended you also take AR302 - Art Appreciation (Sem 2)

Bloomington Area Career Center

Automotive Technology I

Available to: Juniors and Seniors

This course is designed to prepare students for an entry-level job or advanced training in the automotive service and diesel technology field. Students will develop skills in the design, theory, function, and diagnostic procedures of gasoline and diesel engines. In addition, all aspects of the vehicle will be covered, including safety, basic maintenance, braking systems, engine repair, suspension and steering, electrical/electronic, which include modern computer controls and emissions systems. Students will perform automotive service work with an emphasis on shop operating safety procedures.

Automotive Technology II

Prerequisite: Successful Completion of Automotive Technology I

Students will enhance the skills learned in Automotive Technology I as well as develop new skills. Students will learn to use advanced tools and equipment through hands-on experience with the latest technology in the automotive industry. Specific topics that will be covered in depth include safety, basic maintenance, braking systems, engine repair, suspension and steering, electrical/electronic, which include modern computer controls and emissions systems. The students will perform automotive service work with an emphasis on real world shop operating scenarios using teacher and community vehicles.

Barbering I & II

Available to: Sophomores, Juniors, and Seniors

There are tremendous opportunities for a great career in the barbering industry. As a barber, you'll devote your talents to making others look and feel their best. You'll keep up with current trends through practice, instructor demonstrations, and working on mannequins. The barbering industry offers many options for personal growth and many career paths to choose from. Students attend Hairmasters which is a Pivot Point Legacy School. While attending, students demonstrate competencies in several of the classroom modules needed for the required Illinois State Board Exam. All students will focus on one module in the first year and another module in the second year. Classes will also attend the Midwest Beauty Show in Chicago, IL where they are able to network with over 50,000 barbering and cosmetology industry professionals.

Module One will consist of the basic skills in men's and women's haircutting and styling. Students will practice these skills until they have mastered them based upon industry standards. **Module Two** will consist of furthering skills in men's and women's haircutting and styling as well as adding skills in perming, relaxing, and coloring services. Students then practice these skills until they have mastered them based upon industry standards. All hours accumulated during the student's time at BACC Hairmasters Barbering are credited towards the completion of the 1,500 hour course and licensure.

Computer Technology & Networking I

Available to: Sophomores, Juniors, Seniors

The Computer Technology & Networking course is designed to equip both the novice and experienced students with entry-level computer technician proficiencies. Students will work closely with the instructor, an educational technology department, and local technology businesses to better their understanding of the material covered in class. The course will help students become adept with customer support techniques and key computer hardware architecture components, such as: the motherboard, processor, memory, drives, networks, power supplies, and peripheral devices for both desktop and laptop computers. Additionally, students will install, configure, and troubleshoot the significant operating systems utilized today. Significant lab time is provided to offer the student authentic hands-on experiences in working with computers. The goal is to prepare these students to take the COMPTIA A+ Certification (starting point for a career in IT) and have them available to assist schools' technology departments in a variety of manners. In addition to hardware curriculum, the class will also be working on basic networking knowledge and skills; connecting to a network, connecting to the internet through an ISP, network addressing, network services, wireless technologies, basic security, and troubleshooting your network.

This class is Dual Credit with Heartland Community College, Computer Science 101, 4 credits, Networking 151, 3 credits, and Networking 160, 3 Credits.

Computer Technology & Networking II***Prerequisite: Successful Completion of Computer Technology & Networking I***

This course builds on the skills introduced in Computer Technology & Networking I. Students learn how to connect and install multiple computers and peripherals together to create a computer network. Students build, configure, and maintain network servers along with installing and configuring various network operating systems such as Novell, Windows, and Linux. Students learn to use troubleshooting services, system monitoring utilities, and data backup and recovery systems. Other topics include learning how to connect various network components such as servers, computers, and printers together using data cabling, hubs, and switches. Students learn to run, terminate, and troubleshoot data cabling. In addition, students learn how to install and upgrade software across the network, as well as map drives and share resources such as printers, software, and files. The course includes setting up and configuring various network services such as TCP/IP, DHCP, DNS, VPN, terminal services, e-mail, and web services. Students learn how to secure and protect network servers and data as well as setting up and configuring a firewall, intrusion detection system, and encryption software for identifying and preventing potential network attacks.

This class is Dual Credit with Heartland Community College, Networking 150, 3 Credits, Networking 166, 3 Credits, and Networking 167, 3 Credits.

Computer Technology & Networking III***Prerequisite: Successful Completion of Computer Technology & Networking I and II***

This course builds on the skills introduced in Computer Technology & Networking I and II. Internships will be a part of this course along with independent study in the students' area of interest. Cybersecurity is currently the main focus of this course through an online lab simulation application.

Construction I**Available to: Sophomores, Juniors, Seniors**

This course provides an opportunity for students who are planning on entering a post-secondary educational program in construction or entering into the workforce at entry level. The focus of the class is the construction by the students of a residential home, with emphasis on foundations, framing, exterior and interior finish and roofing. Students will develop workplace skills in basic math, hand and power tools, basic blueprint reading, safe work habits, proper job attitudes, technical jargon and learn about the wide variety of opportunities in the field of construction.

OSHA 10-hour safety certification and CertainTeed Master Shingle Applicator Certification

This class is dual credit with Heartland Community College, Construction 101, 3 credit hours.

Construction II***Prerequisite: Successful Completion of Construction I***

This course provides an opportunity for students who are planning to enter a postsecondary educational program in construction or enter into the workforce at entry level. Students will enhance workplace skills in blueprint reading, mechanical systems, electrical wiring, and construction estimating and scheduling, while developing leadership roles.

Cosmetology I, II, & III**Available to: Sophomores, Juniors, Seniors**

Do you want to learn how to braid, style, and perm long and short hair? Then this is the program for you! Students attend Hairmasters, which is a Pivot Point Legacy School. While attending, students demonstrate competencies in two of the five classroom modules needed for the required Illinois State Board Exam. All students will focus on one module in the first year and another module in the second year. Classes will also attend the Midwest Beauty Show in Chicago, where they are able to network with over 50,000 hair, skin, and nail professionals. **Module One** will consist of styling hair in the wet and dry state. Training on manikins will develop an understanding of the shape of the head. Observation will be made of different ways of styling long and short hair. These methods may include braiding, curling, straightening, up and down styles, and many more. Students then practice these methods until they have mastered these techniques based upon industry standards. **Module Two** will consist of understanding the texture of the hair. This will include adding and removing texture to hair, as well as multicultural texture reformation. Observation will be made of different ways of perming using different chemicals and rod styles, and relaxing hair using different chemical relaxers. Students then practice these methods until they have mastered these techniques based upon industry standards. All hours accumulated during the student's time at BACC Hairmasters Cosmetology are credited towards the completion of the 1,500-hour course and licensure. First and second year students may also attend extra hours on Saturday and attend night school to complete their certification early with the approval of their instructor. The Bloomington Area Career Center will pay for one night school class and may pay for some Saturday hours.

This program pathway can be completed at Hairmasters where they will prepare you to take the Illinois State mandated exam.

Criminal Justice & Law Enforcement I

Available to: Sophomores, Juniors, Seniors

This program is designed to acquaint students with the various aspects of the criminal justice system, including the structure of law enforcement; procedures of criminal law; the court system; corrections; and juvenile justice. Students will first learn the basics of the criminal justice system and become familiar with criminal law and how it applies to individual rights. United States Supreme Court landmark cases will be examined to have a better understanding of their importance in today's role in our criminal justice system. Students will also hear from experts who will expand their knowledge about the multitude of career opportunities within the criminal justice field. Students will take part in field trips to various locations within the criminal justice specialty areas to see and learn about their daily operations. Students will also take part in various hands-on activities similar to the duties of a police officer, as well as explore aspects of various roles within the police departments, including exploration in forensic science, evidence processing, and steps to properly process a crime scene.

Criminal Justice & Law Enforcement II

Prerequisite: Successful Completion of Criminal Justice & Law Enforcement I

During this phase of the program, students will have the opportunity to explore more concise and detailed operations of the criminal justice field. Students will participate in various job-shadowing opportunities and off-site visits to select venues to gain a better understanding of specialties and characteristics within the criminal justice field. Independent study units will be used to allow a more advanced insight, as students will research and analyze actual police cases to examine findings and submit recommendations. Students will also have the opportunity to take on leadership and mentoring roles to first-year students and utilize their first-year experiences to assist in guiding students toward a successful year.

Culinary Arts I

Available to: Juniors and Seniors

This course provides students considering a career in culinary arts and the food service industry with classroom instruction and lab experiences to develop job-related competencies. Students start with basic sanitation and workplace safety, and then continue with instruction on food handling, preparation, quantity production, quality control, planning, operation, and presentation. Commercial quality food service equipment will be used to prepare food and provide hands-on instruction for each area of food study. Students will have the opportunity to earn the Foodservice Food Handler Certification.

This class is Dual Credit with Joliet Junior College: CA 106, 2 credits. Through this Dual Credit course, students will have the opportunity to earn the ServSafe Food Handler and Servsafe Food Production Manager Certification through ServSafe, which is endorsed by the National Restaurant Association.

Culinary Arts II

Prerequisite: Successful Completion of Culinary Arts I

This course provides students with leadership opportunities and responsibility for food service management. Students in this class have the opportunity to cater many different events. Students have the opportunity to plan menus, select food, supervise food preparation, develop pricing strategies, order food, and maintain safety and sanitation, while mastering operation of all

food preparation equipment. Students develop skills that will prepare them for postsecondary education and employment opportunities.

EMT (EMERGENCY MEDICAL TECHNICIAN)-BASIC

Available to: Seniors

This course will introduce the care and handling of the critically ill and injured. Emphasis is on the development of skills in assessment of illnesses and the application of proper emergency care procedures. This course will meet federal and state guidelines for basic EMT training. Students who successfully complete this course will be able to sit for the Illinois State or National Registry EMT-Basic licensure exam after turning 18 years of age and graduating from high school.

This class is Dual Credit with Heartland Community College, EMT 101, 8 credits.

Fire Science I

Available to: Juniors, Seniors

This program allows students to explore and prepare for a possible career in Fire Service and as an Emergency Medical Responder (EMR). Professional Firefighters teach the course. Students will gain lab experience on-site at Bloomington and Normal Fire Stations and will learn technical and manipulative skills. Those skills include, but are not limited to, the following areas of study: fire behavior, safety, self-contained breathing apparatus, turnout gear use, portable fire extinguishers, ladders and ladder use, fire hose and appliances, building construction, forcible entry, ventilation, water supply, nozzles and fire streams, rescue, fire control, and ropes and knots. The students will be offered the opportunity to participate in Skills USA, a competition of other fire science students in Illinois. Students must be in good physical condition to enroll in the course, as training will include climbing stairs and crawling with additional equipment and supplies.

This program is Dual Credit with Illinois Central College: Fire Science 110, 3 credits & Fire Science 113, 3 credits.

Graphic Design & Video Production I

Available to: Sophomores, Juniors, Seniors

Do you want to know how to turn your ideas into digital graphics? Have a skill at conceptualizing advertising graphics and want to turn them into usable pieces? Well here is a class for you. Students in this course will develop skills used by digital media graphic designers, desktop publishers, and other members of the multimedia/communications industry. Students will be using industry standard software packages, such as: Photoshop, Illustrator, Final Cut Pro X, and more. Students will be introduced to drawing techniques, digital photography, page assembly, multimedia production and print technologies, as well as vinyl printing. Students will also utilize the steps necessary to mass produce digital media designs. If you are considering a career in graphic arts, this is the class for you!

This class is Dual Credit with Heartland Community College, Digital Media 101, 3 credits. Students have the opportunity to become Adobe certified in Illustrator CC and Photoshop CC.

Graphic Design & Video Production II

Prerequisite: Successful Completion of Graphic Design & Video Production I

Students in this class will receive intensive study in advanced digital media design. Students will have the opportunity to establish a leadership role within the print shop, and partner with outside resources to create projects for distribution. This class is recommended for students who are considering a career in the industry as well as preparing for post-secondary education.

This class is Dual Credit with Heartland Community College, Digital Media 120, 3 credits.

Graphic Design & Video Production III

Prerequisite: Successful Completion of Graphic Design & Video Production I and II

Curriculum will be based on student interest, market trends, and business demands. Internships will also be a primary part of the coursework.

Health Careers and Medical Terminology

Available to: Sophomores, Juniors, Seniors

Health Careers and Medical Terminology is a one-year program offered to sophomore, junior and senior students interested in pursuing a career in the medical field or in public safety. Students will learn basic human anatomy and physiology, a solid foundation in medical terminology, and injury/disease processes. Students will have many

opportunities for hands-on training and skills development. It will provide a clear understanding of the first aid process in an emergency situation. The course will include field trips to local hospitals to see the skills firsthand with the potential for job shadowing. The course will explore many medical career options such as Physical and Occupational Therapy, Radiology, Dental Assistant, Nursing, Sports Medicine, X-Ray Technician, as well as Physician specialties. It will give students an up-close look at employment opportunities and educational pathways.

This class is Dual Credit with Heartland Community College, Health 110, 3 credits.

Nurse Assistant

Available to: Juniors, Seniors

Are you contemplating a career in health care? Well, this is the class for you! The opportunities are unlimited for trained professionals in the healthcare field. Upon successful completion of this course, students are eligible to take the state competency exam to become certified nursing assistants (CNAs). Classroom instruction includes certification in Basic Life Support/CPR and fundamental healthcare principles. Some of these healthcare principles include infection control, safety, patient confidentiality, measuring vital signs, bathing and grooming techniques, nutrition, and transferring residents. Students will participate in hands-on care of residents in long-term care facilities as part of the clinical requirements. Attendance is essential due to the number of state-mandated hours that are required. This class is recommended for students planning for post-secondary education or career attainment. Excellent attendance and communication skills are necessary.

This class is Dual Credit with Heartland Community College, Nursing 110, 8 credits .

Advanced CNA

Prerequisite: Completion of Nurse Assistant program, CNA certification, and approval from Nurse Assisting instructors

Are you interested in getting hands-on experience in local hospitals, clinics, and medical offices? The Advanced CAN program is an internship program in which students gain learning experiences in local health care facilities. Students will benefit from speakers within the industry, enhance their technical skills, and develop workplace readiness. Students who have completed the BACC Nurse Assistant program have an opportunity to apply for the Advanced CNA program.

The top 15 students are chosen based on their clinical skills, grades, attendance, professionalism, communication skills, and leadership qualities. Participating internship sites include, but are not limited to: Carle Bromenn Medical Center, OSF St. Joseph Medical Center, Center for Wound Healing and Hyperbaric Medicine, and Illinois Cancer Care. This class is recommended for students planning for post-secondary education or career attainment.

Robotics & Engineering

Available to: Sophomores, Juniors, Seniors

Students enrolled in this course will demonstrate the knowledge and skills necessary for robotic and engineering industries. Through implementation of the design process, students will apply concepts learned in physical science and physics classes to mechanical devices. Students will develop skills in mechanical design (CAD), and construction as they work in teams to build simple and complex robotic devices. They will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the engineering fields.

Satellite Campus

Geometry in Construction

Prerequisite: Successful Completion of Algebra I

Location: Normal Community High School and Normal Community West High School

Geometry in Construction is an integrated geometry in construction course. The common core aligned geometry curriculum is taught in the context of construction. The course is team-taught by a math teacher and a technology teacher. The concepts within the course are organized to complement the skills and the knowledge needed in the building process starting with foundational concepts. The students in this course will have math days as well as build days. On the build days, the students will be working together to build a tiny house, shed, or assist with a Habitat for Humanity house. This course will provide students with the opportunity to immediately apply what they are learning in the classroom to what they are doing on the build site. Students will receive two credits for this year long, blocked course; one elective credit, one math credit.

Laborers' Training

Available to: Juniors, Seniors

Are you interested in concrete finishing, bridging, mason tending, landscaping, GPS, blueprint reading, and pipe laying? The options and specializations available to Union Laborers are incredible! Upon successful completion of this program, students are eligible to apply for the Laborer's Union apprenticeship program with thirteen of the fifteen required classes for the Laborer's Union Apprenticeship Program. This course is a combination of both classroom instruction and hands-on experiences. Attendance is important for this course. This class is recommended for students who are highly interested in joining the Laborer's Union upon graduation. An interest in hands on work and a willingness to try new things are essential for this course.

Welding I

Available to: Juniors, Seniors

Location: Heartland Community College and Tri-Valley High School

This course is designed for students with an interest in the field of manufacturing, which includes machining, sheet metal, computerized machines, and welding. Classroom instruction will include workplace safety, blueprint reading, applied math, training of hand and power tools, and instruction on proper procedures of laboratory equipment. Specialized laboratory learning experiences include planning, manufacturing, assembling, and metal fabricating process. Students may work towards the American Welding Society (AWS) certification in Shielded Metal Arc Welding (SMAW). Students will develop skills necessary to continue with post-secondary education or obtain an entry-level position in the manufacturing occupations. Students will also benefit from the business partnership with Caterpillar.

This class is Dual Credit with Heartland Community College, Welding 110, 3 credits.

Welding II

Program held at Heartland Community College and Tri-Valley High School

Prerequisite: Successful Completion of Welding I

Students enrolled in this course will enhance their opportunities for obtaining employment in manufacturing. Students will specialize in an area of interest while mastering blueprint reading, applied math, training of hand and power tools, and instruction on proper procedures of laboratory equipment. Students will also increase the amount of lab experience in the area of Computer Numerical Control (CNC) by using a lathe and vertical mill. Students experience 95% hands-on activities during the second year and may work towards the American Welding Society (AWS) certification in the Shielded Metal Arc Welding (SMAW). Students will also benefit from the business partnership with Caterpillar.

This class is Dual Credit with Heartland Community College, Manufacturing 115 and Welding 116, 3 credits each.

*****Dual Credit is subject to change at the discretion of the community college.*****

SkillsUSA

SkillsUSA is a nationally recognized organization that helps high school and college students enhance traits and skills that will help them succeed in the workforce. Members participate in local chapter meetings to develop leadership, teamwork, citizenship, character, and self-confidence as they attend classes to learn career and technical skills. State and National level competitions allow students to display the leadership and occupational skills they have learned throughout the year, and students are assessed by industry-driven standards. SkillsUSA provides access to postsecondary scholarships and training to prepare workers for a lifetime of success in and out of the workplace. Any student enrolled in a BACC program is eligible to participate in SkillsUSA.

Business Department

Accounting

BU301/BU302

No prerequisite. Open to all students

Accounting is a skill level course that is of value to all students pursuing a background in business, marketing, and management. Students will be acquainted with the fundamental principles and terms of accounting and given the opportunity to apply these principles by solving problems and practice sets, both manually and with the aid of the computer. Students will be given the opportunity to complete multiple real-world simulations throughout the year. The class also provides many

opportunities for students to learn about the world of business and our economic system. This course is offered on an alternating year schedule.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

COREQUISITES: If you take this course, it is recommended you also take BU302 - Accounting (Sem 2)

Consumer Economics

BU205

Prerequisite: None

This one-semester course is required in order to meet the consumer economics state requirement for graduation. It is directed from a personal finance viewpoint. Areas of emphasis include decision-making, investing, money management, banking and bank services, credit, taxes, insurance, buying an automobile, and obtaining a career. Students will engage in projects using the Internet.

COURSE NOTE: Fulfills State Consumer Education Requirement

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Introduction to Business

BU112

Prerequisite: None

This one semester course will help students develop a personal understanding of the business economy in which we live and work. Several areas of business including accounting, marketing, management, entrepreneurship, economics, technology, ethics and international business will be studied. Other instructional topics include investing, insurance, credit, and taxes. This course will also provide students the opportunity to create, run and operate their own business through class projects and computerized activities.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Sports and Entertainment Marketing

BU206

In this semester long course, we will explore the exciting world of marketing and advertising through the sports and entertainment spectrum. This course will teach students the ways different companies and products are priced, placed and promoted. We will look at types of promotions, conduct market research through identifying target markets and discuss how to reach that market. We will also teach the types of business ownerships as well as the business plan including the marketing and financial plan. This class will use real world examples specifically from the world of sports and entertainment.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Entrepreneurship

BU310

This one-semester elective business course will focus on the core elements of being a successful entrepreneur. It will be centered around students creating a business plan, which will allow them to get hands on experience as an entrepreneur. Students will gain business insight in regards to the amount of work starting and maintaining a successful business takes, as well as more in-depth working knowledge of all facets of business such as accounting, management, leadership, and marketing.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

Engineering Technology Department

Computer Aided Design Track

Computer-Aided Design

ET111/ET112

Lab Fee: \$10.00 per semester

This course teaches the knowledge and skills needed to develop technical designs and record those designs on paper and on the computer. Major topics covered in the course include precision drawing techniques, 2D drafting, 3D modeling, and architectural design. Individual design projects will make up a large part of the course. Students also will receive significant experience with AutoCAD and other leading software programs. This course is also a prerequisite for several design courses within the Computer Aided Design track.

CREDIT: 1.0

TYPE: Regular

GRADE: 9-12

COREQUISITES: If you take this course, it is recommended you also take ET112 - Computer-Aided Design (Sem 2)

Architectural Design

ET211/ET212

Lab Fee: \$10.00 per semester

Architectural Design is a course designed to introduce students to the basic and advanced fundamentals of residential architecture. Emphasis will be placed on the areas of sketching, basic drawing, floor plan and elevation development, use of Computer Aided Design (AutoCAD), and problem solving. Students will develop plans for a two-car garage, vacation cottage, and a two-story residential home. Building design and construction materials and processes will be introduced and emphasized.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: ET111 - Computer-Aided Design (Sem 1) or ET112 - Computer-Aided Design (Sem 2)

COREQUISITES: If you take this course, it is recommended you also take ET212 - Architectural Design (Sem 2)

Computer Science Elective

Digital Computing

ET290/ET291

This course is a broad introduction to computer programming in a wide range of fields from science and engineering to business, art, and music. Students will learn to code in multiple formats and explore such areas as app development, music synthesis, and robotics through large-scale creative projects. Other topics will include the basics of networking and internet communication as well as the societal and ethical implications of computer use.

CREDIT: 1.0

TYPE: Regular

GRADE: 9-12

AP Computer Science

ET301/ET302

Lab Fee: AP Test fee applies

This is an introduction to computer programming using Java. No previous programming experience is required. The course will cover material equivalent to a first-level computing course in college. Depending on time, the courses content will also include other topics of interest to students, such as graphical programming and user interactivity. Students successfully completing the course will be prepared to take the AP Computer Science exam in the spring. Students must have completed Algebra 2/Algebra 2/Trig and will be enrolled in a current math class.

COURSE NOTE: Students must have completed Algebra 2/Algebra 2/Trig and will be enrolled in a current math class.

CREDIT: 1.0

TYPE: Advanced Placement

GRADE: 11-12

PREREQUISITE: Any Algebra course

COREQUISITES: If you take this course, it is recommended you also take ET302 - AP Computer Science (Sem 2)

Engineering Technology Track

Introduction to Engineering Technology

ET101/ET102

Lab Fee: \$20.00 per semester

This course is designed to introduce students to the major engineering fields, including civil, mechanical, electrical, and aerospace engineering. Students will learn the basic concepts of each field and put their knowledge into practice with many hands-on projects. Typical projects include wind tunnel testing, computer networking, concrete beam testing, electrical power generation, and the annual Rube Goldberg machine design competition. This course is a prerequisite for several engineering technology track courses.

CREDIT: 1.0

TYPE: Regular

GRADE: 9-12

COREQUISITES: If you take this course, it is recommended you also take ET102 - Introduction to Engineering Technology (Sem 2)

Tech Topics

ET103

Lab Fee: \$20.00

This course is designed to explore and discuss past, current and future technologies and how they affect nature, themselves, society and humanity. Students will gain a better understanding of technologies that affect the world in which they live. Key aspects of the class are research, analysis, discussion, debate, and future casting of technologies and current events surrounding those technologies.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Electronics/Computer Design

ET230

Lab Fee: \$20.00

This course is designed to give students the basic understanding of electricity and electronics. Fundamentals of basic circuitry will be discussed along with the laws and properties of electricity. Students will learn to use and develop electrical devices and troubleshoot electrical systems. The class is designed to keep students involved and will be student centered through hands-on activities such as small electrical projects. The two capstone projects will be investigating and building a personal computer, as well as, designing, building and competing in the robot hockey competition.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

Science Elective

Principles of Technology (Sem 1)

SC201/SC202

Lab Fee: \$20.00 per semester

Principles of Technology is a course in applied science that is designed to prepare students more effectively for advances in technology. It blends an understanding of basic science principles with practice in practical applications. Principles of Technology deals with physics concepts as they apply in the four energy systems: mechanical, fluid, thermal, and electrical. Emphasis will also be placed on hands-on activities, creative thinking and problem solving, and having fun learning. Activities include design challenges such as CO2 car design, Rube Goldberg machines and watercraft. Field trips will also be taken to understand these principles first hand. Students must be currently enrolled in or completed Algebra 1.

COURSE NOTE: Students must be currently enrolled in Algebra 1 or have already passed it.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

English Department

*Denotes survey course

Freshman English

EN101/EN102

Required for graduation

Freshman English is a required survey course for freshmen, which functions as an integral part of the freshman curriculum. The focus of Freshman English is on the development of a broad range of language skills, including critical reading for literature and information, competent writing, speaking, and listening. These skills are developed in the classroom and applied during the completion of a series of interdisciplinary projects, which relate to freshman thematic units. Students read literature which relates to the major themes of Freshman Program, write in response to a variety of rhetorical situations, and develop academic discussion skills.

CREDIT: 1.0

TYPE: Regular

GRADE: 9

COREQUISITES: If you take this course, you must also take EN102 - Freshman English (Sem 2)

Argumentation and Debate

EN111

Offered first semester. In this course students learn the principles of argumentation and debate, analyze contemporary problems and issues, research the topics, and organize material for effective oral presentations. Students do in-class debating. Because the students' skills can be further developed and because the issues investigated change, the course may be repeated for credit. This course is offered every year, but only during the fall semester.

COURSE NOTE: May be repeated

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Oral Communication

EN205

REQUIRED for Graduation. This one-semester required course focuses on the development of Oral Communication skills in one-on-one conversations, group discussions of various sizes, individual and group presentations. Informal and formal presentations will be given by students on informational, persuasive, and debate topics. An emphasis will be placed on the process of writing speeches including outlining and research.

CREDIT: 0.5 **TYPE:** Regular **GRADE:** 10

PREREQUISITE: EN101 - Freshman English (Sem 1) or EN102 - Freshman English (Sem 2)

CREDIT: 0.5

TYPE: Regular

GRADE: 10

PREREQUISITE: EN101 - Freshman English (Sem 1) or EN102 - Freshman English (Sem 2)

HCC Communication 101

EN206

Heartland Community College Communication 101 taught at UHS. Taking this course also fulfills the Oral Communication requirement within the English curriculum. This introductory course in public speaking helps students understand basic communication principles and improves their oral communication skills. The course emphasizes preparing, selecting, organizing, and delivering oral messages, as well as analyzing and evaluating the speaking-listening process.

COURSE NOTE: Must pass HCC ACCUPLACER and enroll with HCC College Now program.

CREDIT: 0.5

TYPE: Dual Credit

GRADE: 10

Sophomore Writing

EN215

Required for graduation

Lab Fee: \$10.00

This semester composition course is required for graduation. Building on the elements of the writing process introduced in Freshman English, this class combines expository writing with formal vocabulary study and nonfiction reading. Taught as a writing workshop in a technology-rich environment, all students use computers as writing tools. Typical units include personal narrative, extended definition, letter writing, essay-test taking, documented essay writing, and research paper writing.

CREDIT: 0.5

TYPE: Regular

GRADE: 10

PREREQUISITE: EN101 - Freshman English (Sem 1) or EN102 - Freshman English (Sem 2)

Journalism

EN221/EN 222

Lab Fee: \$25 per semester

Want to get published? Want to write for the school newspaper or yearbook? This publications-based course emphasizes media literacy, role of the press, basic news writing, layout, design, copy, proofreading, photography, and graphics as they relate to the Clarionette newspaper and Clarion yearbook. This course may be repeated for credit, however only one credit can be applied toward the English graduation requirement. Students wishing to become an editor must take the course both junior and senior years. You must get approval from the course instructor, Amy Reiman, in order to take this class.

CREDIT: 1.0

TYPE: Regular

GRADE: 11-12

COREQUISITES: If you take this course, you must also take EN222 - Journalism (Sem 2)

Creative Writing

EN231

Offered first semester. Lab Fee: \$10.00

A one-semester creative writing workshop in which students learn the basics of desktop publishing while producing portfolios of original poetry and prose. In addition to completing individual portfolios, each student will contribute to a class anthology and be encouraged to prepare at least one manuscript for submission to a publishing outlet or writing contest.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: Sophomore standing and basic keyboarding skills

Shakespeare

EN232

Offered second semester.

"The play's the thing" in this one-semester literature and discussion course devoted to the life and works of the bard: William Shakespeare. Tragedies and comedies such as Hamlet, Othello, Much Ado About Nothing, and A Midsummer Night's Dream are studied both within the context of English Renaissance culture and for the timeless, universal appeal of the stories. The plays are reviewed via a range of media: text, film, audio recording, and live performance.

This course is sequenced with Introduction to Theater and Acting

This course is offered on an alternating year schedule.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: EN101 - Freshman English (Sem 1) or EN102 - Freshman English (Sem 2)

Contemporary Literature

EN242

Contemporary Literature is intended for students who enjoy reading and would like to study literature published in the twenty-first century. Students will read a range of novels, poetry, short stories and essays from a diverse group of cutting-edge writers, and the class will frequently hold “book club” style discussions, reflecting upon the themes, style and form of the various reading assignments.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: EN101 - Freshman English (Sem 1) **or** EN102 - Freshman English (Sem 2)

Science Fiction and Fantasy

EN251

Offered second semester.

A one-semester literature and discussion course devoted to the study of science fiction and fantasy. The unique characteristics of these genres will be explored through a variety of texts both classic and contemporary. Book list varies, but authors studied include Octavia Butler, Isaac Asimov, Kurt Vonnegut, Ursula K. Le Guin, Neil Gaiman, HG Wells, and Arthur C. Clarke.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: EN101 - Freshman English (Sem 1) **or** EN102 - Freshman English (Sem 2)

Contemporary Rhetoric

EN252

EN252 Contemporary Rhetoric

A one-semester course grounded in contemporary texts (commercials, political ads, persuasive texts, etc.) that helps students understand modern rhetorical devices used in the media they consume and requires students to put those devices into use in their own writing. This course is only offered in even numbered years which means it will line up with the primary election season and focus on electoral rhetoric at the state and national level. This course is offered in the spring semester, sequenced with ENG 111 Argumentation and Debate. Due to the ever changing rhetorical landscape of our world, this course may be repeated.

Course Note: May be repeated

CREDIT: 0.5 **TYPE:** Regular **GRADE:** 10-12

PREREQUISITE: EN101 - Freshman English (Sem 1) **or** EN102 - Freshman English (Sem 2)

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: EN101 - Freshman English (Sem 1) **or** EN102 - Freshman English (Sem 2)

Contemporary African American Literature

EN281

Contemporary African American Literature. In this one-semester course, students will read from both teacher and student-selected texts exploring a range of novels, poetry, speeches, film, drama, music, and essays by black authors. The class will explore how these voices inform discussions on identity, entertainment, and political and social movements today. Projects will focus on the development of reader identity by facilitating a process in which students determine literary preferences and participate in “book club” style discussions using the lens of contemporary black writers. Specifically, this class will focus on fiction and nonfiction literature from the Civil Rights era to present day.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: EN101 - Freshman English (Sem 1) **or** EN102 - Freshman English (Sem 2)

American Literature and Composition

EN301/EN302

Full-Year Survey Course

Recommended for college-bound juniors, this course combines the study of American literature from its beginnings to the present with composition based on the literature. The literature of America is as diverse as the peoples in it, and this course endeavors to cover representative voices including Hansberry, Fitzgerald, Twain, Hurston, the Transcendentalists, and more. Contemporary novels, essays, short stories, and poetry are examined. We use these texts to explore verbal and written communication strategies, always exploring what insights literature has to offer about how we pursue the American experiment together.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

COREQUISITES: If you take this course, you must also take EN302 - American Literature and Composition (Sem 2)

British Literature and Composition

EN311/EN 312

Full-Year Survey Course

Brit Lit is a year-long course focusing on the Hero and Villain archetypes. During the course, we analyze and discuss the evolution of these figures, how they have evolved in literature to reflect our changing times. In order to do this, we read texts

like Beowulf, King Arthur, Frankenstein, Pride and Prejudice, and even Harry Potter and James Bond. Students will complete a variety of assessments not limited to essays, but also including visual art, performance, poetry, presentations, and discussions. The ultimate goals of this course are to prepare students for college and the real world, but also to engage them in thoughtful, creative study of some of the most popular figures of our time.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

COREQUISITES: If you take this course, you must also take EN312 - British Literature and Composition (Sem 2)

AP English Literature and Composition

EN401/EN402

Lab Fee: AP test fee applies

This course explores what literature has to say about being human. What role can literature play in helping each of us lead a well-examined life? How does literature help us explore how and who we want to be with one another? These are just some of the questions we will ask of the poetry, plays, and novels through the centuries and across geographies and identities. This senior level AP course is designed for college-bound students and consists of intensive work in both critical reading and expository writing. Literature selections, with an emphasis on English language works, both British and American, are organized thematically by such units as Human Anxieties and Inventing the Human in which we read texts such as *Hamlet*, *The Things They Carried*, *The Handmaid's Tale*, *The Road*, *Parable of the Sower*, *Homegoing*, and many more. This is a discussion-based class that emphasizes critical thinking. A College Board Advanced Placement exam is required for those taking the course.

CREDIT: 0.5

TYPE: Advanced Placement

GRADE: 12

COREQUISITES: If you take this course, you must also take EN402 - AP English Literature and Composition (Sem 2)

AP English Language and Composition

EN501/EN502

Lab Fee: AP test fee applies

This junior level AP course is an intensive expository writing course for college-bound seniors designed to develop advanced writing skills and analytical thinking skills. Students write and revise themes similar to those required in freshman college composition courses. A College Board Advanced Placement exam will be offered to those successfully completing the course.

CREDIT: 0.5

TYPE: Advanced Placement

GRADE: 11

PREREQUISITE: EN101 - Freshman English (Sem 1) **or** EN102 - Freshman English (Sem 2)

Critical Reading & Writing (Dual Credit)

HCC ENG 101

Heartland Community College English 101 taught at UHS.

In this course, students will put rhetorical principles into useful cultural practice via researching, designing, creating, and sharing multimodal composition projects that contribute to real academic or career purposes and audiences. Conceptual knowledge of genre, textual control, document design, writer responsibility, and collaboration will be applied as students research academic or career interests. Students will learn and apply both primary and secondary research skills, and will compose projects that successfully employ genre-appropriate reasoning, formats, and structures. Because this is a course in understanding multimodal texts, we read and view widely. We will compare/contrast *A Raisin in the Sun* to contemporary articles about race relations in the United States. We will read and study global crisis and oral history through the novel *World War Z*. This course focuses on the demands of first-year college composition and will treat writing as an act of inquiry and develop a set of critical practices for communicating and arguing effectively. When taken in conjunction with HCC ENG 102, student will receive survey credit for to meet their graduation requirement. HCC ENG 101 is the prerequisite for HCC ENG 102. Students who have successfully completed AP Language will not be allowed to enroll in this course as it duplicates much of the content for that course.

CREDIT: 0.5

TYPE: Dual Credit

GRADE: 11-12

Multimodal Composition (Dual Credit)

HCC ENG 102

Heartland Community College English 102 taught at UHS.

This course picks up where 101 leaves off, focusing on putting rhetorical principles into useful cultural practice via researching, designing, creating, and sharing multimodal composition projects that contribute to real academic or career purposes and audiences. Conceptual knowledge of genre, textual control, document design, writer responsibility, and collaboration will be applied as students research academic or career interests. Students will learn and apply both primary and secondary research skills, and will compose projects that successfully employ genre-appropriate reasoning, formats, and structures. Students will compose 3 major projects, 2 of which with a total of at least the equivalent of 10 pages (3300 words)

in revised form and include multiple sources. This course has replaced Intro to College Composition. When taken in conjunction with HCC ENG 101 (the prerequisite for this course), student will receive survey credit to meet their graduation requirement.)

CREDIT: 0.5

TYPE: Dual Credit

GRADE: 11-12

PREREQUISITE: HCC ENG 101: Critical Reading and Writing

World Language Department

French Courses

French 1

FL101/FL102

Lab Fee: \$5.00 per semester

This course is for those beginning their study of French or those with minimal experience in French. Emphasis is placed on developing the skills of listening, speaking, reading, and writing in interpersonal, interpretive, and presentational communication. The course introduces basic grammatical structures and vocabulary with limited reading and writing. Students will also learn about a variety of cultures.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

COREQUISITES: If you take this course, you must also take FL102 - French 1 (Sem 2)

French 2

FL201/FL202

Lab Fee: \$5.00 per semester

French 2 reinforces and builds upon the knowledge gained in French 1. It will continue to develop the interpersonal, interpretive, and presentational communication goals. These skills include listening, speaking, reading, and writing. The course focuses on mastery of basic grammatical structures, acquisition of functional vocabulary, and cultural awareness and appreciation.

Recommended a grade of C or above in French 1

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

PREREQUISITE: FL101/102 or equivalent with a grade of "C" or above

COREQUISITES: If you take this course, you must also take FL202 - French 2 (Sem 2)

French 3

FL301/FL302

Lab Fee: \$5.00 per semester

French 3 reinforces and builds upon the knowledge gained in French 1 and 2. This course will advance the interpersonal, interpretive, and presentational communication goals. These skills include listening, speaking, reading, and writing. The course will focus on mastery of basic to more complex grammatical structures and expand vocabulary acquisition to more sophisticated terms. Students will further their cultural awareness and appreciation.

Recommended a grade of C or above in French 2

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: FL201/202 or equivalent with a grade of "C" or above

COREQUISITES: If you take this course, you must also take FL302 - French 3 (Sem 2)

French 4

FL401/FL402

Lab Fee: \$5.00 per semester

Emphasis is placed on using higher order thinking skill to analyze literature and culture. Class discussion and participation, conducted in French, are important parts of this class. Grammar is reviewed and new, complex structures are learned. Written

composition combines grammar and literary analysis. Foreign films are used as a means to fuel historical and cultural discussion. The class also focuses on improving reading comprehension through literature.

Recommended a grade of C or above in French 3

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

PREREQUISITE: FL301/302 or equivalent with a grade of “C” or above

COREQUISITES: If you take this course, you must also take FL402 - French 4 (Sem 2)

French 5

FL501/FL 502

Lab Fee: \$5.00 per semester:

This class is intended for students who wish to develop their proficiency in all four language skills: listening, speaking, reading, and writing. Students will practice comprehension of formal and informal spoken French. Students will compose essays, read works intended for native speakers, participate in discussions, and give presentations. This course will be conducted only in French and will have major emphasis on culture in order to prepare students for the AP French Language and Culture exam, if they choose to take it.

Recommended a grade of A or B in French 4

CREDIT: 0.5 **TYPE:** Regular **GRADE:** 12

PREREQUISITE: FL 401/402 or equivalent with a grade of “C” or above

COREQUISITES: If you take this course, you must also take FL502 - AP French (Sem 2)

Mandarin Chinese

Mandarin Chinese 1

FL115/FL116

This introductory course aims for students to achieve linguistic accuracy and conversational competence in the Chinese language. Students will be trained in four language skills: listening, speaking, reading, and writing. The course will emphasize vocabulary building, sentence patterns, and skills that will enable students to talk about simple topics of daily life and to read and write short passages. Students will also be introduced to elements of Chinese culture.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Mandarin Chinese 2

FL117/FL118

The goal of this course is to develop and advance students' communication competence in four language skills: listening, speaking, reading, and writing. Students will learn about 300 new characters and be able to talk about topics such as school life, restaurants, and shopping using more sophisticated vocabulary and complex sentence patterns. Authentic materials will be used to enrich students' cultural knowledge and experiences.

Recommended a grade of C or above in Mandarin 1

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Mandarin Chinese 3

FL119/FL120

This course is designed for students who have completed two years of Chinese to continue to develop their skills in listening, speaking, reading, and writing. The course aims to help students solidify their ability to comprehend and produce paragraph-level Chinese and to enable students to understand conversations on familiar topics, to give factual accounts, to read formal materials, and to write simple essays and other types of correspondence.

Recommended a grade of C or above in Mandarin 2

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

HCC Chinese 202

FL121/FL122

Heartland Community College Chinese 202 taught at UHS.

This course is a college-level dual credit class that is designed to help students consolidate their skills in listening, speaking, reading, and writing the Chinese language, through a more thorough development of vocabulary, grammar structures, language usage, and composition of Chinese characters. Students are expected to read and listen skillfully and to develop their oral and written communication abilities in the Chinese language.

Recommended a grade of C or above in Mandarin 3

CREDIT: 0.5

TYPE: Dual Credit

GRADE: 11-12

Spanish Courses

Spanish 1

FL111/FL112

Lab Fee: \$5.00 per semester:

This course is for those beginning their study of Spanish or those with minimal experience in Spanish. Emphasis is placed on developing the skills of listening, speaking, reading, and writing in interpersonal, interpretive, and presentational communication. The course introduces basic grammatical structures and vocabulary with limited reading and writing.

Students will also learn about a variety of cultures.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Spanish 2

FL211/FL212

Lab Fee: \$5.00 per semester:

Spanish 2 reinforces and builds upon the knowledge gained in Spanish 1. It will continue to develop the interpersonal, interpretive, and presentational communication goals. These skills include listening, speaking, reading, and writing. The course focuses on mastery of basic grammatical structures, acquisition of functional vocabulary, and cultural awareness and appreciation.

Recommended a grade of C or above in Spanish 1

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

PREREQUISITE: FL111/112

Spanish 3

FL311/FL312

Lab Fee: \$5.00 per semester:

Spanish 3 reinforces and builds upon the knowledge gained in Spanish 1 and 2. This course will advance the interpersonal, interpretive, and presentational communication goals. These skills include listening, speaking, reading, and writing. The course will focus on mastery of basic to more complex grammatical structures and expand vocabulary acquisition to more sophisticated terms. Students will further their cultural awareness and appreciation.

Recommended a grade of C or above in Spanish 2

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: FL211/212

Spanish 4

FL411/FL412

Lab Fee: \$5.00 per semester

Emphasis is placed on using higher order thinking skill to analyze literature and culture. Class discussion and participation, conducted in Spanish, are important parts of this class. Grammar is reviewed and new, complex structures are learned. Written composition combines grammar and literary analysis. Foreign films are used as a means to fuel historical and cultural discussion. The class also focuses on improving reading comprehension through literature.

Recommended a grade of C or above in Spanish 3

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

PREREQUISITE: FL311/312

Spanish AP

FL511/FL512

Lab Fee: \$5.00 per semester:

This class is intended for students who wish to develop their proficiency in all four language skills: listening, speaking, reading, and writing. Students will practice comprehension of formal and informal spoken Spanish. Students will compose essays, read works intended for native speakers, participate in discussions, and give presentations. This course will be conducted only in Spanish and will have major emphasis on culture in order to prepare students for the AP Spanish Language and Culture exam.

Recommended a grade of A or B in Spanish 4

CREDIT: 0.5

TYPE: Advanced Placement

GRADE: 12

PREREQUISITE: FL411/412

Mathematics Department

Geometry

MA101/MA102

Level 1

This course is based on the principles of Euclidean, plane, and solid geometries. Students will be introduced to the basic postulates and theorems of geometry and encouraged to extend these ideas to the topics of similarity, circles, area, volume, and proof. Additional topics include constructions, probability, and basic concepts of algebra.

CREDIT: 0.5

TYPE: Regular

GRADE: 9

PREREQUISITE: Placement based on a student's 8th grade Algebra experience and the ALEKS math score.

COREQUISITES: If you take this course, you must also take MA102 - Geometry (Sem 2)

Accelerated Geometry

MA111/MA112

Level 1

This course is based on the principles of Euclidean, plane, and solid geometries. Students will be introduced to the basic postulates and theorems of geometry and encouraged to extend these ideas to the topics of similarity, circles, area, volume, and proof. Additional topics include constructions, probability, and basic concepts of algebra. In addition, students are involved in a more technological, theoretical, and algebraic approach to geometry.

CREDIT: 0.5

TYPE: Accelerated

GRADE: 9

PREREQUISITE: Placement based on a student's 8th grade Algebra experience and the EXPLORE math score.

COREQUISITES: If you take this course, you must also take MA112 - Accelerated Geometry (Sem 2)

Algebra 1

MA221/MA222

Level 2

This course integrates traditional algebra topics with various methods of problem solving. Topics include: sets, properties of the real number system, exponents, radicals, polynomials, functions, graphing, equations, systems of equations, and quadratics.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-11

PREREQUISITE: MA101/102

COREQUISITES: If you take this course, you must also take MA222 - Algebra 1 (Sem 2)

Algebra 2

MA301/MA302

Level 3

This course is a traditional second year of algebra. Topics include: a brief review and extension of basic algebra principles; linear, quadratic, rational, radical, logarithmic, and exponential functions and equations; probability and statistics; and basic trigonometric functions and their properties.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

PREREQUISITE: MA221/222 or equivalent

COREQUISITES: If you take this course, you must also take MA302 - Algebra 2 (Sem 2)

Algebra 2/Trigonometry

MA311/MA312

Level 3

This course combines a second year of algebra and the study of trigonometric functions. Topics include those listed above in Algebra 2 plus: sequences and series; combinatorics; properties of trigonometric and inverse trigonometric functions; trigonometric equations; solutions of oblique and right triangles.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: MA111/MA112 - Accelerated Geometry **or** MA101/MA102 – Geometry **or** MA221/MA222 - Algebra 1

COREQUISITES: If you take this course, you must also take MA312 - Algebra 2/Trigonometry (Sem 2)

Pre-Calculus

MA411/MA412

Level 4

This course emphasizes topics that will prepare the students for higher-level mathematics. It is recommended for students who will pursue college courses in mathematics, the sciences, engineering and other mathematics-intensive degrees. Topics include: trigonometric functions and identities, inverse functions, plane and solid analytic geometry, polynomials, exponents and logarithms, statistics and probability, polar coordinates, complex numbers, and introductory calculus topics.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

PREREQUISITE: MA311 - Algebra 2/Trigonometry (Sem 1) **or** MA312 - Algebra 2/Trigonometry (Sem 2) **or** MA311E - Algebra 2/T Early Bird (Sem 1) **or** MA312E - Algebra 2/T Early Bird (Sem 2)

COREQUISITES: If you take this course, you must also take MA412 - Pre-Calculus (Sem 2)

College Algebra

MA401/MA402

Level 4

Mathematical topics and applications required for college-level study in areas such as biology, business, computer science, and/or social science are emphasized. Topics include; statistics, models and transformations of functions; polynomial, power, exponential, logarithmic and trigonometric functions; sequences and series; probability and statistics; and conics.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

PREREQUISITE: MA301 - Algebra 2 (Sem 1) **or** MA302 - Algebra 2 (Sem 2)

COREQUISITES: If you take this course, you must also take MA402 - College Algebra (Sem 2)

HCC Math 109 College Algebra

MA403/MA404

Heartland Community College taught at UHS.

The main concept of this course is the notion of a function. Polynomial, radical, rational, exponential, and logarithmic functions are studied from a symbolic, as well as graphical perspective. The course is intended to prepare college students for studying Calculus. Graphing utilities are used extensively as learning tools. A graphing calculator is required for this course.

COURSE NOTE: Must take the ACCUPLACER at HCC and enroll through the College Now program.

CREDIT: 0.5

TYPE: Dual Credit

GRADE: 12

AP Statistics

MA501/MA502

Level 5

Lab Fee: AP test fee

This course emphasizes the mathematical topics and applications required for college level study in areas such as biology, business, computer science, and/or social science. Topics include: Methods of data collection, descriptive data analysis, probability, and inferential statistics.

COURSE NOTE: Students may also co-enroll in Pre-Calculus.

CREDIT: 0.5

TYPE: Advanced Placement

GRADE: 12

PREREQUISITE: MA 401/402 or MA 411/412

Dual Credit Calculus (Heartland Community College)

Heartland Community College taught at UHS.

Topics include (but are not limited to) the following: limits and continuity; definition of derivative; rate of change, slope; derivatives of polynomial, rational, trigonometric, logarithmic and exponential functions; the chain rule; implicit differentials; approximation by differentials; higher order derivatives; Rolle's Theorem; Mean Value Theorem; applications of the derivative; anti-derivative; L'Hopital's Rule; the definite integral; the fundamental theorem of calculus; area under the curve and Riemann Sums; area between two curves, volume, and other applications of the integral. Note, a graphing calculator is required for this course (instruction will be based on a TI-89)

Transferrable General Education Course: This course generally should transfer to an Illinois Articulation Initiative college or university. Please consult with your advisor about transferability.

CREDIT: 0.5

TYPE: Dual Credit

GRADE: 10-12

PREREQUISITE: MA411/MA412 - Pre-Calculus

***Please Note:** Students enrolled in HCC Dual Credit Calculus are also able to sit for the AP Calculus test at University High School.

AP Calculus

MA511/MA512

Level 5

Lab Fee: AP test fee applies

This is a first course in differential and integral calculus, covering all topics included in the AP AB Calculus curriculum. AP Calculus is comparable to a first college calculus course for students majoring in mathematics or the sciences. Students will take the AP Calculus exam in the spring.

CREDIT: 0.5

TYPE: Advanced Placement

GRADE: 10-12

PREREQUISITE: MA411/MA412 - Pre-Calculus

CREDIT EQUIVALENTS: MA 514 - AP Calculus BC (Sem 2) is a similar course and you will not receive credit for taking both.

AP Calculus BC (Sem 2)

MA 514

This is a college-level calculus course designed to meet the Advanced Placement curricular requirements for Calculus BC (equivalent to one year of college calculus). The major topics of this course are limits, derivatives, integrals, the Fundamental Theorem of Calculus, and series. We will investigate and analyze course topics using equations, graphs, tables, and words, with a particular emphasis on a conceptual understanding of calculus. Applications, in particular to solid geometry and physics, will be studied where appropriate.

Course

In addition to the regular classroom time, this hybrid course is taught from 3:00-4:00 in the Spring Semester. Students may enroll in BC for the entire year which will include the BC after school section. The BC Calculus class will count for 1.5 credits.

CREDIT: 1

TYPE: Advanced Placement

GRADE: 10-12

PREREQUISITE: MA513 - AP Calculus (Sem 1)

CREDIT EQUIVALENTS: MA511 - AP Calculus (Sem 1) is a similar course and you will not receive credit for taking both. Course requires concurrent enrollment in any Calculus AB section. In addition to the daily AB course, this course will meet at least two days after school from approximately 3pm-4:30pm. Daily work is assigned and monitored

HCC Finite Math 111

Heartland Community College taught at UHS.

MA406

This class focuses on applications of the following topics: matrices, matrix algebra, linear programming, sets and counting techniques, probability, and the mathematics of finance. A graphing calculator is required for this course (instruction will be based on a TI 83+).

COURSE NOTE: Must take ACCUPLACER and enroll through the College Now program at HCC.

CREDIT: 1.0

TYPE: Dual Credit

GRADE: 12

Music Department

Band

MU131/MU132

Lab Fee: \$75.00 for fall semester, and \$25.00 for spring semester

The band is an ensemble that provides musical experiences for students who play woodwind, brass, or percussion instruments. Students are taught instrumental and ensemble techniques with an emphasis on musicianship. The curriculum includes marching band and concert band, and students are required to attend and perform at all home football games, scheduled parades, contests, and concerts. Students at all levels of proficiency are welcomed, and students wishing to enter band as a beginner can do so with the consent of the instructor.

Attendance at all scheduled performances is required, as well as some required summer marching band rehearsals and marching band camp.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

PREREQUISITE: A minimum of one year of prior band experience or Instructor approval

Chorus 1

MU101/MU102

Lab Fee: \$25.00 per semester

Open to all students in grades 9-12 who enjoy singing. This course covers a wide variety of choral music while focusing on vocal production, ensemble singing techniques, music reading skills, and music appreciation.

Attendance at all scheduled performances is required.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Color Guard

MU141

Fall Semester

Lab Fee: \$75.00

The Auxiliary Corps or Flags are the “colors” of the University High School Marching Pioneers. Through costuming and equipment (flags, banners, etc.), they portray the music to the audience. The course is offered first semester only and meets in

conjunction with the band class.

Students are required to attend and perform at all home football games, scheduled parades and contests, as well as some required summer marching band rehearsals and marching band camp.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Orchestra

MU121/MU122

Lab Fee: \$25.00 per semester

The orchestra is an ensemble that provides musical experiences for students who play string instruments. In orchestra we study and perform a wide variety of music from both classical and pop genres. With the consent of the instructor, school-owned cello or string bass instruments may be provided. Lessons and chamber music opportunities are also available.

Attendance at all scheduled concerts and performances is required.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

Treble Choir - Female

MU111/MU112

Lab Fee: \$25.00 per semester

This course is an intermediate level chorus open to all female students in grades 9-12. This course covers a wide variety of choral music while focusing on vocal production, ensemble singing techniques, music reading skills, and history of and appreciation for various musical styles. Previous chorus experience is recommended, but not required.

Attendance at all scheduled performances is required.

CREDIT: 0.5

TYPE: Regular

GRADE: 9-12

COREQUISITES: If you take this course, you must also take MU112 - Treble Choir - Female (Sem 2)

Concert Choir

MU201/MU202

Lab Fee: \$25.00 per semester

An auditioned, advanced choir consisting of students in grades 9-12. This course continues the course objectives of Chorus 1 and Treble Choir supplemented by additional study in advanced choral literature.

Attendance at all scheduled performances is required.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

Music Theory

MU300/MU301

Students will study basic music theory skills and concepts including:

- Rhythm & meter
- Melody
- Harmony
- Tonality
- 4-part voice-leading
- Analysis of compositional examples
- How these concepts are used in compositional techniques in different genres and historical periods of music
- Basic listening skills which accompany each of the above concepts will also be developed using recordings, listening examples, and sight-singing.

Students will complete a written evaluation at the end of each unit of study. There will also be aural skills assessments during each unit that correlate with the unit of study. Students will also have the opportunity to use the concepts learned to create their own compositions.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

Non-Traditional Coursework

Heartland Class Request (Sem 1)

HC301/HC302

Credit: Varies based on the number of semester hours earned: 0.5 credit for 3 semester hour courses, 1.0 credit for 4 semester hour courses

Lab Fee: Tuition paid to Heartland

Registration Procedure:

1. Work with your U-High counselor to obtain their approval and complete this form: [Heartland Dual Credit Form](#)
 2. Complete a Heartland Community College application if this is your first HCC class.
 3. Submit the application, along with your transcript to HCC and take the Basic Skills Assessment Test if required.
 4. Meet with a HCC advisor, provide the permission letter, and register for your class.
 5. Once registered with HCC, fill out the form for U-High and return to your counselor.
- Note: If for any reason the student drops this course, notify the Counseling Center immediately and follow the deadlines and procedure at HCC for dropping a class. Students are reminded that they must continue to maintain the six course period requirement.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

Illinois State University Dual Enrollment

ISU Dual Enrollment Request

IS401/IS402

Credit earned: 0.5 credit for 3 semester hour courses, 1.0 credit for 4 semester hour courses

Lab Fee: Tuition paid to Illinois State University

Registration Procedure:

1. Work with your U-High counselor to obtain their approval and complete this form: [ISU Dual Credit Form](#)
 2. Fill out an Illinois State University "Dual Enrollment" application prior to the deadline and meet admission requirements.
 3. Return the application to the Counseling Center for processing.
 4. Students wishing to take a Mathematics course at ISU must take the Math placement exam.
 5. Registration will be handled by a designated University College Academic Advisor. A specific registration date and time will be established each semester for dual enrollment students. University College Advisors will come to U-High to register the students at that time. Students are not to contact the university to register.
- Note: The philosophy of the Dual Enrollment Program is to offer and opportunity to enhance a student's interest in a particular field of study that is not offered at the high school.

Also note: Registration for this program will generally be limited to 30 U-High students each semester as space permits. If more than 10 students request the same ISU course, administration will determine if this specific need can be met by U-High.

Special note: Following these procedures does not guarantee a seat in any given course at ISU.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

Illinois Virtual School

IVS Class Request

IV201/IV202

Credit: 0.5 credit per semester

Course Fee: \$240

Registration Procedure:

1. Work with your U-High counselor to obtain their approval and complete this form: [IVS Request Form](#)
2. Select the course you are requesting. Courses that are offered at University High School are only permitted with valid reasoning and Department Chair permission.
3. Register on-line at www.ilvirtual.org by following the enrollment process.
5. Attach a check for \$240.00 payable to University High School.
6. Final approval and official enrollment in the course will only occur after all the above procedures have been followed.

CREDIT: 0.5

TYPE: Regular

GRADE: 10-12

Independent Study

Independent Study Request

IN301/IN302

Lab Fee: Varies depending on requirements of study

Registration Procedure:

1. Select a topic to study or project to perform
2. Find a teacher who will teach/lead/facilitate your study
3. Complete the Independent Study form with your sponsor.
4. Students must commit to a minimum of 5 hours per week for credit.
5. Return completed form to the Counseling Center within the first 10 days of the semester.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

Office Assistant

Office Assistant Request

TA201/TA202

Credit: None

Registration Procedure:

1. A student may elect to spend one of their six required classes working in a school office (main office or counseling center office).
2. This is a mutual agreement on contract between a teacher/supervisor and the student. The student agrees to be on time daily to perform tasks given by their supervisor.
3. No credit will be given.
4. Complete the required form and return it to the Counseling Center within the first 10 days of the semester.

CREDIT: 0

TYPE: Regular

GRADE: 12

PREREQUISITE: Senior standing with 3.0 GPA

Teacher Assistant

Teacher Assistant Request

TA211/TA212

Credit: None

Registration Procedure:

1. A student may elect to spend one of their six required classes assisting a teacher
2. This is a mutual agreement on contract between a teacher/supervisor and the student. The student agrees to be on time daily to perform tasks given by their supervisor.
3. No credit will be given.
4. Complete the required form and return it to the Counseling Center within the first 10 days of the semester.

CREDIT: 0

TYPE: Regular

GRADE: 12

PREREQUISITE: Senior standing with 3.0 GPA

Physical, Health, & Driver Ed Department

Freshman Wellness

PE101/PE102

All students are enrolled in freshman wellness. This class combines Physical Education and Health. The concept is to expose the students to a total wellness program for individual health. Our goal in the class is for students to accept responsibility for their own health and through the wellness program examine alternatives for various lifestyle practices.

CREDIT: 1.0

TYPE: Regular

GRADE: 9

COREQUISITES: If you take this course, you must also take PE102 - Freshman Wellness (Sem 2)

Dance and Orchesis

PE111E/PE112E

May be repeated

Lab Fee: \$25.00 per semester

The dance division offers two levels combined with the emphasis on movement through dance, history, injury prevention, technique classes, dance composition, choreography, and performance. While both levels are encouraged to take part in two major dance concerts a year, Orchesis is the pre-auditioned performing group required to attend regular and mandatory rehearsals outside of class time. This course may be taken for either Physical Education or Fine Arts credit. This is an early bird course, meeting at 7:00am.

CREDIT: 1.0

TYPE: Regular

GRADE: 9-12

Advanced Strength and Conditioning

PE213/PE214

This course will be a training intensive curriculum. The focus of this course will be to improve the individual's strength, speed, power, flexibility, agility, balance, and bodily awareness. Activities included in the class will be a regimen of weight training, plyometrics, dynamic stretching, and static stretching. Additionally, instruction will be given on proper exercise techniques, and proper dietary supplementation for training. Participants in this class will be assessed using the SHAPE National Standards.

CREDIT: 1.0

TYPE: Regular

GRADE: 10-12

Early Bird Section Advanced Strength and Conditioning**PE213E/PE214E**

This course will be a training intensive curriculum. The focus of this course will be to improve the individual's strength, speed, power, flexibility, agility, balance, and bodily awareness. Activities included in the class will be a regimen of weight training, plyometrics, dynamic stretching, and static stretching. Additionally, instruction will be given on proper exercise techniques, and proper dietary supplementation for training. Participants in this class will be assessed using the SHAPE National Standards.

CREDIT: 1.0**TYPE:** Regular**GRADE:** 10-12**Personal Fitness****PE211/PE212**

The objective of this course is for students to set goals in order to compose a health related physical fitness program that will allow the individual to improve cardiovascular endurance, muscular strength and endurance, flexibility and body composition. This class is designed for those who wish to concentrate on an individualized fitness program rather than team activities. Data will be collected through heart rate monitors and other various equipment. Activities offered throughout the course include: aerobic activities, anaerobic activities, Zumba, kickboxing, Pilates, yoga, weight training, plyometrics, Spinning, concept days (nutrition, mental health, etc), and occasional team games

CREDIT: 1.0**TYPE:** Regular**GRADE:** 10-12**Physical Education Activities****PE201/PE202**

The activities offered in the course include: Badminton, Basketball, Billiards, Bowling, Fitness, Flag Football, Floor Hockey, Lacrosse, Pickle Ball, Recreation Games, Soccer, Softball, Tennis, Track, and Volleyball. The activities will be scheduled in three-week units through each quarter.

CREDIT: 1.0**TYPE:** Regular**GRADE:** 10-12**Physical Education Activities Early Bird Section****PE201E/PE202E**

The activities offered in the course include: Aerobics, Archery, Badminton, Basketball, Billiards, Bowling, Fitness, Flag Football, Floor Hockey, Golf, Pickle Ball, Recreation Games, Soccer, Softball, Speedball, Table Tennis, Tennis, Track, Volleyball, and Weight Training. The activities will be scheduled in three-week units through each quarter.

CREDIT: 0.5**TYPE:** Regular**GRADE:** 10-12

COREQUISITES: If you take this course, you must also take PE202E - Physical Education Activities Early Bird Section (Sem 2)

PE Waiver Request Fall**PE311**

No description available

CREDIT: 0**TYPE:** Regular**GRADE:** 11-12**PE Waiver Request Spring****PE312**

No description available

CREDIT: 0**TYPE:** Regular**GRADE:** 11-12

Science Department

Biology 1**SC111/SC112**

Lab Fee: \$10.00 per semester

Selected areas of biology are included with an emphasis on lab work. This is one of the foundation courses for the science sequence. Biology 1 has a focus on life and living systems and satisfies state standards and college entry requirements.

COREQUISITES: If you take this course, you must also take SC112 - Biology 1 (Sem 2)

CREDIT: 1.0

TYPE: Regular

GRADE: 9-10

Chemistry

SC211/SC212

Lab Fee: \$10.00 per semester

This course introduces the role of chemistry in contemporary society, providing a qualitative view of fundamental chemical concepts such as laboratory skills, atomic structures, chemical nomenclature and reactions, chemical analysis, and synthesis.

PREREQUISITE: SC111/112, not open to students who have passed SC221/222

COREQUISITES: If you take this course, you must also take SC212 - Chemistry (Sem 2)

CREDIT: 1.0

TYPE: Regular

GRADE: 10-12

Accelerated Chemistry

SC221/SC222

Lab Fee: \$10.00 per semester

This course provides an accelerated quantitative discussion on the composition, structure, and interaction of matter. Through classroom work, demonstrations, projects, and extensive laboratory experiences topics such as atomic and nuclear structure, periodic relationships, chemical reactions, acids and bases, gas laws, solutions, and many others will be covered. Accelerated Chemistry should be taken by all students interested in science-related fields as a possible career. This course is required for enrollment in Advanced Placement Chemistry. Student must currently be enrolled in Algebra 2 or Algebra 2/Trig

PREREQUISITE: SC111 - Biology 1 (Sem 1) or SC112 - Biology 1 (Sem 2)

COREQUISITES: If you take this course, you must also take SC222 - Accelerated Chemistry (Sem 2)

CREDIT: 1.0

TYPE: Accelerated

GRADE: 10-12

Principles of Technology

SC201/SC202

Lab Fee: \$20.00 per semester

Principles of Technology is a course in applied science that is designed to prepare students more effectively for advances in technology. It blends an understanding of basic science principles with practice in practical applications. Principles of Technology deals with physics concepts as they apply in the four energy systems: mechanical, fluid, thermal, and electrical. Emphasis will also be placed on hands-on activities, creative thinking and problem solving, and having fun learning. Activities include design challenges such as CO₂ car design, Rube Goldberg machines and watercraft. Field trips will also be taken to understand these principles first hand. Students must be currently enrolled in or completed Algebra 1.

COURSE NOTE: Students must be currently enrolled in Algebra 1 or have already passed it.

CREDIT: 1.0

TYPE: Regular

GRADE: 10-12

Advanced Bio Sem I (Zoology and Animal Behavior):

SC311

Zoology is the study of animals and their behavior. This semester-long class will focus on the study of different phyla within the animal kingdom. Students will identify, classify, and learn the evolutionary significance for each phylum. A key component of this class will be the dissection.

PREREQUISITE: Completion of Biology and Chemistry

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

Advanced Bio Sem II (Biotechnology and Botany):

SC312

This semester-long class which will cover elements of Biotechnology and Botany. There will be an emphasis on the understanding of protein synthesis and biotechnology methodology including PCR, gel electrophoresis, recombinant DNA, and insertion of genetic material into organisms to create GMOs. The other part of the semester class will take an in-depth look at botany including cell structure and function of basic plant parts and processes.

PREREQUISITES: Completion of Biology and Chemistry

CREDIT: 0.5 **TYPE:** Regular **GRADE:** 11-12

Environmental Science

SC301/SC302

Lab Fee: \$10.00 per semester

This course will study the consequences of the neglect and abuse of our natural environment and explore ways to change our environmental behaviors. Topics include a survey of scientific methodology; basic geological principles; terrestrial and aquatic ecology; population and community ecology; urban planning; biogeography; natural resource conservation (water; air; land; minerals; energy); biodiversity; pollution; waste management; relationship between human health and environment; relationship between economics, political issues, and environment; sustainability and quality of life issues.

PREREQUISITE: SC111/112 and either SC101/102 or SC211/212

CREDIT: 1.0

TYPE: Regular

GRADE: 11-12

Human Anatomy and Physiology

SC304/SC305

This course will enable students to develop an understanding of the relationships between the structures and functions of the human body and to prepare them for higher education in medicine and/or Biology. Students will investigate every system in the human body and will also learn about development, epidemiology, and how diseases have shaped human history. The curriculum for this rigorous course includes 5 areas that will be assessed multiple times over the course of the year: Anatomy (including preserved cats), Physiology, Homeostasis Models, Pathophysiology, and Medical Terminology.

PREREQUISITE: Completion of Biology and Chemistry

CREDIT: 1.0

TYPE: Regular

GRADE: 11-12

Physics

SC321/SC322

Lab Fee: \$10.00 per semester

This full-year course focuses on traditional concepts in physics, and encourages the exploration of new discoveries in this field of science. The course includes an overview of scientific principles and procedures, and leads students toward a clearer understanding of motion, energy, electricity, magnetism, and the laws that govern the physical universe. As students refine and expand their understanding of physics, they will apply their knowledge in experiments that require them to ask questions and create hypotheses. Throughout the course, students solve problems, reason abstractly, and learn to think critically. Students must have completed Algebra 2/Trig before taking this course.

PREREQUISITE: Students must be enrolled or have completed Algebra 2/T or have completed Algebra 2 and are currently enrolled in College Algebra.

CREDIT: 1.0

TYPE: Regular

GRADE: 11-12

AP Biology

SC314/SC316

Lab Fee: \$10 per semester

This course will follow the format and rigors prescribed by AP courses. The course will provide students with an opportunity to develop a conceptual framework in modern biology. Emphasis will be placed on an understanding of science as a process rather than an accumulation of facts, recognition of evolution as the foundation of modern biological models and thought, the integration of the general topics will be reflected through 8 major themes and applications of biological knowledge and critical thinking to environmental and social issues. The course will include a laboratory component fulfilling the requirements of an AP class. The laboratory will be held one evening a week and is mandatory.

CREDIT: 1.5

TYPE: Advanced Placement

GRADE: 11-12

AP Physics C:

SC403/404

AP Physics is a calculus-based physics course that covers kinematics, dynamics, energy, momentum, rotation, gravitation, and oscillations. This course is the equivalent to the introductory physics course taken by science and engineering students at most colleges and universities. Students coming out of the course should have a strong conceptual understanding of physics and well-developed skills in performing and analyzing laboratory experiments. They should also be able to apply their

understanding to approach and solve problems that for the AP electricity and magnetism test. Students must have completed Physics and be currently enrolled in AP Calculus or have already completed AP Calculus.

PREREQUISITES: Students must have completed Physics and Precalculus and currently enrolled in AP Calculus or have already completed AP Calculus.

CREDIT: 1.0

TYPE: Advanced Placement

GRADE: 12

AP Chemistry

SC401/SC402

Lab Fee: \$50.00 per semester, AP test fee applies

This course is designed to be the equivalent of the general chemistry course usually taken during the first college year and provides students with a college-level foundation to support future advanced coursework in science. This course explores content such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, equilibrium, acids and bases, and electrochemistry. A variety of inquiry-based experiments are conducted during a separate, mandatory laboratory period that meets each Wednesday night (6:00 p.m. - 9:00 p.m.) on the campus of ISU.

PREREQUISITE: SC211/SC212 - Chemistry **or** MA401 - College **or** MA411 - Pre-Calculus

Course Note: Students are not allowed to take HCC Chemistry 120 and then AP Chemistry or vice versa.

CREDIT: 1.75

TYPE: Advanced Placement

GRADE: 11-12

HCC Chemistry 120 Fundamentals of Chemistry

SC405/SC406

This class is a survey of general, organic, and biological chemistry for students who plan to pursue a health-related profession or who have an interest in chemistry. An emphasis is placed on the relationship between chemistry and life through issues and examples from the health, medical, and environmental fields. Laboratory exercises will be used each week to reinforce the class material.

PREREQUISITE: Students must have passed general or accelerated chemistry with a B or better and be concurrently enrolled in Algebra II/Trig.

Course Note: Students are not allowed to take HCC Chemistry 120 and then AP Chemistry or vice versa.

CREDIT: 1.0

TYPE: Dual Credit

GRADE: 11-12

Social Science Department

World Studies

SS101/SS102

Using a global approach to history, this course in the Freshman Program is essentially a survey of political, cultural, and economic developments and achievement of humanity from pre-historic times to the present. Exercises in basic social science skills will include the development of geography skills, research skills, and the demonstration of analytical, critical, and reflective thinking skills through oral and written presentations. These skills will be implemented while examining such major themes as religions of the world, political and economic systems, causes and results of revolutions, and 20th century world conflicts.

COREQUISITES: If you take this course, you must also take SS102 - World Studies (Sem 2)

CREDIT: 0.5

TYPE: Regular

GRADE: 9

United States Studies

SS201/SS202

The first semester of work emphasizes political growth and the origin and development of US history from the Colonial Period through the close of the Civil War. The course will use primary and secondary sources to inform students about topics in US history including law, economics, politics, democracy and society. Specifically we will investigate the revolutionary and

constitutional period. The rise of popular politics and democracy will be investigated during the Age of Jackson. Finally various causes of the Civil war will be studied. We will focus on the diversity of America by looking at stories and contributions from all people who are Americans. Knowledge, skills, and attitudes that promote critical thinking and responsible participation in solving problems that challenge citizens of the nation and the world will be emphasized.

COURSE NOTE: Required for graduation.

COREQUISITES: If you take this course, you must also take SS202 - United States Studies (Sem 2)

CREDIT: 0.5

TYPE: Regular

GRADE: 10

United States Studies Early Bird Section

SS201E/SS202E

The first semester of work emphasizes political growth and the origin and development of US history from the Colonial Period through the close of the Civil War. The course will use primary and secondary sources to inform students about topics in US history including law, economics, politics, democracy and society. Specifically we will investigate the revolutionary and constitutional period. The rise of popular politics and democracy will be investigated during the Age of Jackson. Finally various causes of the Civil war will be studied. We will focus on the diversity of America by looking at stories and contributions from all people who are Americans. Knowledge, skills, and attitudes that promote critical thinking and responsible participation in solving problems that challenge citizens of the nation and the world will be emphasized.

COURSE NOTE: This course is required for graduation.

COREQUISITES: If you take this course, you must also take SS202E - United States Studies Early Bird Section (Sem 2)

CREDIT: 0.5

TYPE: Regular

GRADE: 10

AP United States History

SS411/SS412

Lab Fee: AP test fee applies

This course provides students with the analytical skills and factual knowledge to deal critically with the problems, issues, and materials in American History. It is the equivalent of a full-year college freshman survey course. The semester 1 program of study covers the pre-colonial period through the Reconstruction Era. This course meets the graduation requirements of 1.0m credit in U.S. History as well as offering the student the opportunity to earn 6-8 college credits. NOTE: Interested students should consult the College Board webpage for more information about the AP experience and course itself.

CREDIT: 0.5

TYPE: Advanced Placement

GRADE: 10-12

American Government and Politics: The State and Civic Engagement

SS321

A one-semester study of the structure and history of the U.S. Constitution and federal government. This meets the U.S. and Illinois Constitution requirement for graduation as outlined in the Illinois School Code. The topics and themes will be federalism, republicanism, enfranchisement, flag usage and maintenance, separation of powers/checks and balances, judicial review, executive authority, and civic engagement. A variety of sources, including current readings from scholarly journals and other periodicals, will be used. Simulations, mock events, Socratic discussions, and individualized research projects constitute the instructional design of the course.

COURSE NOTE: This course is required for graduation.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

AP US Govt and Politics

SS322

Lab fee: AP test fee applies.

This course will provide students with an analytical perspective on government and politics in the United States. Students will describe and compare important facts, concepts, and theories pertaining to U.S. government and politics. Specifically, they will examine and explain political processes and typical patterns of behavior, as well as their consequences; interpret relevant graphic and textual political data; and critically analyze relevant political theories and media to become informed and engaged citizens. The express purpose of this course is to prepare students for the AP U.S. Government and Politics exam. Therefore, this course will be taught with college level rigor and expectations.

CREDIT: 0.5

TYPE: Advanced Placement

GRADE: 11-12

PREREQUISITE: SS201 - United States Studies or SS201E - United States Studies Early Bird Section or SS202 - United SS411 - AP United States History

AP Comparative Government & Politics

SS323

As described by College Board, "Comparative Government and Politics introduces students to fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. The course aims to illustrate the rich diversity of political life, to show available institutional alternatives, to explain differences in processes and policy

outcomes, and to communicate to students the importance of global political and economic changes. Comparison assists both in identifying problems and in analyzing policy-making."

CREDIT: 0.5

TYPE: Advanced Placement

GRADE: 11-12

PREREQUISITE: SS321 - American Government and Politics: The State and Civic Engagement **or** SS322 - AP US Govt and Politics

Philosophy

SS301

Fall Semester

This course introduces students to a variety of philosophical principals. Included topics are basic foundations of philosophy, ethics and political institutions, human free will, knowledge and reality, natural rights and the state of nature, the pursuit of power, human nature and citizenship, existence and skepticism, and the foundations of individual freedoms. All of these concepts will be explored in both their historical context and in how they relate to the student today. Assessments will be both authentic and alternative.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

Psychology

SS401

This course introduces students to a variety of psychological principles. Included topics are basic psychological theories, the principles and applications of learning and cognitive processes, memory and thought, sensation and perception, altered states of consciousness, personality theory, the life span, and classification and treatment of abnormal behavior. The class will include frequent use of mini-experiments to demonstrate basic ideas.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

Sociology

SS402

This course concentrates on the role of the group in society. Topics will include culture, socialization, gender issues, conformity and obedience, collective behavior and social movements, race and ethnicity, deviance and social control, and issues of social inequality. Students will apply sociological theories and principles to their own society as well as others around the world.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

HCC Dual Credit Sociology

Heartland Community College course taught at U-High.

This course provides an introduction to the scientific study of society. Topics include the history of the discipline, culture, groups, organizations, bureaucracies, deviance, power and inequality, race/ethnicity, class, gender, education, the economy, the political institution, family, religion, and social change. Students will develop a critical understanding of social forces.

Course Note: Students must complete the College Now application through HCC and pass the placement test.

CREDIT: 0.5

TYPE: Dual Credit

GRADE: 11-12

Current Issues

SS332

This course concentrates on using current media outlets to better help students understand many of the current issues facing our nation and world. Media resources such as television, film, and radio will be utilized in conjunction with a variety of different print sources, particularly newspapers and journals, to achieve the above mentioned goal. This course will meet alternating days of the week and will include outside class work online.

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

Modern U.S. History: 1945 – Present

This course provides an introduction to modern American history: specifically, 1945 to the present day. Major topics include Cold War politics (e.g. Korea, Latin America, Vietnam, the Space Race), Cold War culture (e.g. music, movies, television, fashion, etc.); social movements (e.g. African American Civil Rights Movement, Women's Rights Movement, Gay Rights Movement, Red Power Movement, #MeToo Movement, Black Lives Matter, etc.); the War on Drugs and its impact on the modern criminal justice system; environmental history; and political history from Nixon to Trump (e.g. Watergate, Reaganomics, Persian Gulf War, 2000 election, War on Terror, Obama, Trump, and political polarization).

CREDIT: 0.5

TYPE: Regular

GRADE: 11-12

