



Course Descriptions

2018-2019

AUTOMOTIVE TECHNOLOGY I

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.

This class is Dual Credit with Illinois Central College, Automotive 101, 3 credits

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.

CIVIL ENGINEERING & ARCHITECTURE

This Project Lead the Way course is designed for both female and male students wishing to further develop skills in 3D Computer Architectural Design (CAD) and drafting; as those skills apply to Architecture, Engineering and Construction (AEC). Project Lead the Way is a nationally recognized high school Pre-Engineering curriculum. The 3D environment is emphasized. Students will have the opportunity to work with community projects. Previous community projects include BHS Student Center, Nu-Way Distribution Center, and a new Normal Township Senior Center. Surveying, Energy Efficiency, and Structural Design are additional units of instruction. Students have the opportunity to participate in competitions. In addition, students have the opportunity for Autodesk certification.

This class is Dual Credit with University of Iowa, Elective Credit, 3 credits (Students must earn a 6 or greater on the end of course assessment to apply for dual credit.)

COMPUTERIZED ARCHITECTURAL DESIGN (CEA II)

Prerequisite: Successful Completion of Civil Engineering & Architecture

This is the second-year course for students who have completed Civil Engineering and Architecture. Students enrolled in this course will develop architectural drafting plans and detailed drawings for a variety of community projects. Two-dimensional and three-dimensional computer aided drafting skills are taught using Autodesk Revit. Students will learn about building ordinances and materials, which help those interested in other trades within the Architectural, Engineering, and Construction (AEC) industry. Two Autodesk certifications are awarded upon successful completion of an online test; Autodesk Revit and Building Performance Analysis. This class is recommended for any student who is considering a career in architecture, landscape architecture, construction management, civil engineering, urban and regional planning, and commercial and industrial designing.

COMPUTER TECHNOLOGY & NETWORKING I

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 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.

CONSTRUCTION I

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 and opportunities in the field of construction.

Opportunity to earn a certification for the OSHA 10-hour safety certification

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. Students have opportunity to earn additional certification in other career areas through a national database.

COSMETOLOGY I, II, & III

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 Member 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

This program is designed to introduce students to various aspects of law enforcement and the legal system. Students will be introduced to the history of law enforcement, constitutional law, Illinois law, and the courts and legal system. Students will discover communication and dispatch operations, create reports, analyze records and criminal investigations, establish proper search and seizure procedures, and encourage community relationships. Students will also hear from various industry speakers who will expand on the multitude of career opportunities in the criminal justice field. Students will have the opportunity to participate in job shadowing experiences and develop law enforcement skills and ethics to enhance employability.

Students will also be involved in many related field trips designed to further their criminal justice career pursuit, which include Eureka College CSI Labs, FBI Facility, and the McLean County Law & Justice Center. The students will also be taught proper crime scene investigation techniques and then asked to process a crime scene without contaminating the crime scene. All Criminal Justice and Law Enforcement students will be CPR certified.

CRIMINAL JUSTICE & LAW ENFORCEMENT II

Prerequisite: Successful Completion of Criminal Justice & Law Enforcement I

Students will have the opportunity to experience a variety of experiences through extended campus settings. Students will be introduced to police administration, a variety of management styles, interviewing techniques, preliminary investigations, police security services, pursuits, arrests and expand their knowledge of computer systems. Students will examine different avenues of criminal justice such as social work and probation, court reporting, and paralegal services. Finally, students will participate in job shadowing experiences and develop law enforcement skills and ethics to enhance employability.

CULINARY ARTS I

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 can be a Dual Credit with Joliet Junior College: CA 106, 2 credits. Through this Dual Credit course, students will have the opportunity to earn the Foodservice Sanitation 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 post-secondary education and employment opportunities.

EMT (EMERGENCY MEDICAL TECHNICIAN)-BASIC

Class Level: 12 (Seniors Only)

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

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 201, 3 credits. Students will also have the opportunity for a certificate for "Emergency Medical Responder".

Graphic Design & Video Production I

Do you want to know how advertisers create magazine graphics or product packaging? Interested in creating your own short videos or mixing your own sound effects? Well here is a class for you. Students in this course will develop skills used by 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, GarageBand, Scratch and more. Students will also be eligible to test for their Adobe Certified Associate credentials in Photoshop and Illustrator CS5. Students will be introduced to drawing techniques, digital photography, page assembly, computer animation, multi-media production, and print technologies. Students will 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 and Photoshop.

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, computer animation, and multimedia. Students will have the opportunity to establish a leadership role within our fully functioning print shop, the Student Graphics Company, and partner with outside resources to create projects for distribution. This class is recommended for students who are considering a career in the Creative Services 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 part of the coursework.

HEALTH CAREERS AND MEDICAL TERMINOLOGY

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 necessary 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

Are you thinking of a career in health care? Well this is the class for you! The opportunities are unlimited for trained professionals in the health care field. Upon successful completion of this course, students are eligible to take the State Certification for Certified Nurse's Assistant (CNA). Classroom instruction will include fundamental health-care principles, basic patient care, such as: Vital Signs (blood pressure, pulse, respirations and temp.), height/weight, transferring residents, dressing and feeding residents, bathing, and basic aseptic procedures. Students will participate in clinical two days weekly from October to April at nursing homes. Attendance is essential due to the number of State Mandated hours. *This class is recommended for students planning for post-secondary education or career attainment. *Math, reading, spelling, and communication skills are necessary. Students will be CPR certified.

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

ADVANCED CNA

Prerequisite: Successful completion of Nurse Assistant with a B average or above, and successful attainment of CNA Certification.

Students who have successfully attained the CNA certification, have at least a B average, and who are in the Top 15 of the class may have the opportunity to enroll in Advanced CNA. Students will benefit from speakers within the industry, enhance their technical skill development through internships, and develop workplace skills required in the health care profession. Student internships include, but are not limited to: Millennium Pain Center, OSF Surgi-Center, Community Cancer Center, St. Joseph Hospital, Advocate BroMenn Medical Center, and various doctor offices and clinics. This class is recommended for students planning for post-secondary education or career attainment.

SATELLITE CAMPUS

GEOMETRY IN CONSTRUCTION

Program held at Normal Community High School and Normal Community West High School

Prerequisite: Successful Completion of Algebra I

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.

METALWORKING OCCUPATIONS I

Program held at 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, Technology 114 and Manufacturing 115, 3 credits each.

METALWORKING OCCUPATIONS II

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

Prerequisite: Successful Completion of Metalworking Occupations 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, Welding 110 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 work force. 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 the 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 post-secondary 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.