



2022-2023 Curriculum Guide

IVVC offers classes in 5 career clusters - Skilled Trades, Health Science, Technology, Public Safety, and Human Services.

SKILLED TRADES

- **Auto Body Repair I & II**
- **Automotive Technology I & II**
 - **Aviation Mechanics**
- **Construction Trades I & II**
- **Welding & Fabrication I & II**

Auto Body Repair I

Grades: 11, 12
SIS #: 20116A001

Auto Body I is the first year of a two-year sequence.

Units of study - Industry careers, parts of the vehicle, tools and their uses, basic repairs and painting, panel replacement, plastic repair and basic welding

Tasks you will complete -

- Review work orders and create repair plans
- Clean and detail vehicle for customer delivery
- Communicate with instructor and students regarding repairs
- Prepare areas for repair
- Prime and paint repaired surfaces
- Wet sand and buff vehicles

Skills/abilities you need to be successful - mechanical aptitude, active listening, complex problem solving, critical thinking

Certification you may be eligible to receive upon successful completion -

- SP/2 Safety Certification

Related careers - Auto Body Technician, Refinish Technician (painter), Insurance Adjuster, Paint Company Representative, Vocational/technical Instructor, Salvage Yard Technician, Dealership Parts Counter Person

Auto Body Repair II

Grade: 12
Required: 70% or higher in Auto Body Repair I
SIS #: 20116A002

Auto Body II is the second year of a two-year sequence.

Units of study - Industry careers, parts of the vehicle, tools and their uses, basic repairs and painting, panel replacement, plastic repair, basic welding, estimating and custom paint techniques.

Tasks you will complete -

- Review work orders and create repair plans
- Communicate with instructor and students regarding repairs
- Work as job lead to complete repairs
- Prime and paint repaired surfaces
- Match and blend colors for proper finish
- Masking vehicles
- Vehicle preparation for final paint
- Estimating repairs and costs

Skills/abilities you need to be successful - mechanical aptitude, active listening, complex problem solving, critical thinking

Certification you may be eligible to receive upon successful completion -

- SP/2 Safety Certification

Related careers - Auto Body Technician, Refinish Technician (painter), Insurance Adjuster, Paint Company Representative, Vocational/technical Instructor, Salvage Yard Technician, Dealership Parts Counter Person

Articulated Credit - WCC ABR 115 - Basic Auto Repair (4 credits)

Automotive Technology I

Grades: 11, 12

SIS #: 20104A001

Automotive Technology I is the first year of a two-year sequence.

Units of study - Basic automotive repair for tires, brakes, steering, electrical, suspension and alignments through classroom and practical shop exercises

Tasks you will complete -

- Identify basic hand tools and shop equipment
- Proper setup and operation of automotive lifting equipment
- Removal and installation of wheels and tires
- Repairing brake systems including replacement of worn out parts
- Identifying steering system types and related components
- Identify types of suspension systems and their components
- Performing front and four wheel alignment

Skills/abilities you need to be successful - effective communication skills, ability to follow instructions, ability to work as part of a team, problem-solving skills, patience and confidence, mechanical aptitude, ability to adapt to change

Certification you may be eligible to receive upon successful completion -

- SP/2 Safety Certification

Related careers - Automotive service technician, Automotive service writer, Auto parts counter person

Articulated Credit - KCC AMT 131 - Automotive Steering and Suspension (3 credits)

Automotive Technology II

Grade: 12
Required: 70% or higher in Automotive Technology I
SIS #: 20104A002

Automotive Technology II is the 2nd year of a two-year sequence.

Units of study - Basic engine repair, basic engine performance and diagnostic skills including use of scan tool, automatic transmission identification and proper maintenance, basic heating and air conditioning diagnosis and repair, manual drive train identification and maintenance

Tasks you will complete

- Basic engine teardown, parts identification and reassembly
- Automatic transmission maintenance and basic repairs
- Scan tool operation and basic engine performance diagnosis, including retrieving engine fault codes
- Inspect and replace hub bearings
- Service rear differential
- Perform cooling system service and thermostat replacement
- Identify air conditioning components and learn basic theory of operation
- Perform engine compression and leak down test
- Remove and replace spark plugs
- Inspect and test relays

Skills/abilities you need to be successful - deductive reasoning, able to make decisions and problem solve, mechanical aptitude, knowledge of tools, hand and electrical diagnostic tools, and meters, troubleshooting

Certification you may be eligible to receive upon successful completion -

- SP/2 Safety Certification

Related careers - Automotive service technician, Automotive service advisor, Automotive service manager, Warranty administrator, Field service engineer, Automotive mechanical engineer, Automotive electrical engineer, Parts professional, Dealership parts manager, Dealership salesperson, Dealership general manager

Articulated Credit - WCC AUT 100 - Maintenance and Light Repair (2 credits)
KCC AMT 125 - Automotive Braking Systems (3 credits)

Aviation Mechanics (at Lewis University)

Grade: 12
SIS #: 20113A001

***Fall Semester - Aviation Fundamentals**

Students will complete theory instruction online at IVVC (2 days per week) and will attend Lewis University in Romeoville for lab instruction (3 days per week).

Units of study - Aerodynamics, aircraft design, stability, control, Federal Aviation Administration regulations and publications, weight and balance, and ground handling of aircraft

***Spring Semester - Aircraft Structures I**

Students will complete theory instruction online at IVVC (1 day per week) and will attend Lewis University in Romeoville for lab instruction (4 days per week).

Units of study - Riveting and sheet metal repair, including aluminum, forming and layout and oxyacetylene welding operation, corrosion and corrosion control

*Students may register for both fall and spring semesters or either fall or spring semester.

Required academic qualifications -

- Counselor recommendation
- Minimum 3.0 GPA
- Algebra I and II with a grade of C or higher or concurrent enrollment
- Physics with a grade of C or higher or concurrent enrollment
- High level of motivation and adequate time to devote to studying a college-level course

Related careers - Aviation Maintenance Technician, Flight Operator, Crew Scheduler, Aircraft Maintenance Director, Aircraft Maintenance Supervisor, Airline marketing professionals, Aircraft parts sales

Dual Credit - Lewis University - AVMT-10600 Aviation Fundamentals (4 credits) & AVMT-11000 Aircraft Structures I (4 credits)

Construction Trades I

Grades: 11, 12
SIS #: 17002A001

Construction Trades I is the first year of a two-year sequence.

Units of study - The design process, shop & tool safety, construction terminology, construction methods and techniques, building codes & covenants, CAD (Computer Aided Drafting), customized designs for clients, cost estimating, surveying & excavation, basic framing principles, basic exterior finishing principles, basic electrical principles, basic HVAC principles, basic plumbing principles

Tasks you will complete -

- Follow established safety rules/regulations and maintain a safe and clean environment
- Study specifications in blueprints, sketches, or building plans to prepare project layout and determine dimensions and materials required
- Measure and mark cutting lines on materials, using a ruler, pencil, chalk, and marking gauge.
- Select and order lumber or other required materials

Skills/abilities you need to be successful - hard work ethic, ability to work in hot/cold weather and able to handle physically demanding work, ability to work as part of a team, adaptability and flexibility, sound judgment, courage, decisiveness, quick reactions and the ability to stay calm in difficult circumstances, willingness and ability to learn

Certification you may be eligible to receive upon successful completion -

- OSHA 10 Safety Training

Related careers - Architect, Carpenter, CAD Technician, Designer, Electrician, HVAC Technician, Plumber, Various construction trades careers

Dual Credit - WCC CMT 101 - The Construction Industry (3 credits)

Construction Trades II

Grade: 12
Required: 70% or higher in Construction Trades I
SIS #: 17002A002

Construction Trades II is the second year of a two-year sequence.

Units of study - Shop & tool safety, construction terminology, advanced construction methods and techniques, building codes & covenants, CAD (Computer Aided Drafting), customized designs for clients, cost estimating, surveying & excavation, advanced framing principles, advanced exterior finishing principles, advanced electrical principles, advanced HVAC principles, advanced plumbing principles, job shadowing opportunities, internship possibilities

Tasks you will complete -

- Follow established safety rules/regulations and maintain a safe and clean environment
- Study specifications in blueprints, sketches, or building plans to prepare project layout and determine dimensions and materials required
- Measure and mark cutting lines on materials, using a ruler, pencil, chalk, and marking gauge
- Select and order lumber or other required materials
- Lead a team of students in construction projects

Skills/abilities you need to be successful - hard work ethic, ability to work in hot/cold weather and able to handle physically demanding work, ability to work as part of a team, adaptability and flexibility, sound judgment, courage, decisiveness, quick reactions and the ability to stay calm in difficult circumstances, willingness and ability to learn

Certification you may be eligible to receive upon successful completion -

- OSHA 10 Safety Training

Related careers - Architect, Carpenter, CAD Technician, Designer, Electrician, HVAC Technician, Plumber, Various construction trades careers

Dual Credit - WCC CMT 105 - Print Reading for Construction (3 credits)

Welding & Fabrication I

Grades: 11, 12

SIS #: 13207A001

Welding & Fabrication I is the first year of a two-year sequence.

Units of study - Shop safety, MIG welding, oxy acetylene welding, shielded metal arc welding, stick welding, blueprint reading, layout and fabrication processes

Tasks you will complete -

- Weld components in flat and horizontal positions
- Operate safety equipment and use safe work habits
- Lay out, position, align, and secure parts and assemblies prior to assembly, using straightedges, combination squares, calipers, and rulers
- Recognize, set up, and operate hand and power tools common to the welding trade, such as shielded metal arc and gas metal arc welding equipment
- Select and install torches, torch tips, filler rods, and flux, according to welding chart specifications or types and thicknesses of metals
- Ignite torches or start power supplies and strike arcs by touching electrodes to metals being welded, completing electrical circuits
- Analyze engineering drawings, blueprints, specifications, sketches, work orders, and material safety data sheets to plan layout, assembly, and welding operations
- Chip or grind off excess weld, slag, or spatter, using hand scrapers or power chippers, portable grinders, or arc-cutting equipment
- Remove rough spots from work pieces, using portable grinders, hand files, or scrapers
- Prepare all material surfaces to be welded, ensuring that there is no loose or thick scale, slag, rust, moisture, grease, or other foreign matter
- Dismantle metal assemblies or cut scrap metal, using thermal-cutting equipment, such as flame-cutting torches or plasma-arc equipment

Skills/abilities you need to be successful - respectful & highly motivated, ability to follow instructions, ability to work as part of a team, problem-solving skills, willingness and ability to learn, hand and eye coordination, very detail oriented and organized, ability to work independently in the shop, dependability, manual dexterity, mathematics/measuring

Certification you may be eligible to receive upon successful completion -

- OSHA-10 Safety Certification

Related careers - Ironworker, Pipefitter, Boilermaker, Assembler/Fabricator, Steam Fitter, Machinist, Tool and Die Maker, Sheet Metal Worker, Underwater Welder, Maintenance Welder, Sub Arc Operator, Construction Worker, Machine Operator

Dual Credit: WLD 101 - Blueprint Reading (3 credits)

Articulated Credit: KCC WT 116 - Fundamental Welding Process (2 credits)

Welding & Fabrication II

Grade: 12
Required: 70% or higher in Welding & Fabrication I
SIS #: 13207A002

Welding & Fabrication II is the second year of a two-year sequence.

Units of study - Overhead and vertical welding positions, variable diameter and thicknesses of pipe, specialized TIG welding processes in aluminum and stainless steel

Tasks you will complete -

- Weld components in flat, horizontal, vertical, and overhead positions
- Operate safety equipment and use safe work habits
- Select and install torches, torch tips, filler rods, and flux, according to welding chart specifications or types and thicknesses of metals
- Analyze engineering drawings, blueprints, specifications, sketches, work orders, and material safety data sheets to plan layout, assembly, and welding operations
- Clamp, hold, tack-weld, heat-bend, grind or bolt component parts to obtain required configurations and positions for welding
- Determine required equipment and welding methods, applying knowledge of metallurgy, geometry, and welding techniques
- Monitor the fitting, burning, and welding processes to avoid overheating of parts or warping, shrinking, distortion, or expansion of material
- Operate manual or semi-automatic welding equipment to fuse metal segments, using processes such as gas tungsten arc, gas metal arc, flux-cored arc, plasma arc, shielded metal arc, resistance welding, and submerged arc welding
- Analyze engineering drawings, blueprints, specifications, sketches, work orders, and material safety data sheets to plan layout, assembly, and welding operations
- Develop templates and models for welding projects, using mathematical calculations based on blueprint information
- Repair products by dismantling, straightening, reshaping, and reassembling parts, using cutting torches, straightening presses, and hand tools
- Calculate dimensions or tolerances, using instruments such as micrometers or vernier calipers
- Machine parts to specifications, using machine tools, such as lathes, milling machines, shapers, or grinders

Skills/abilities you need to be successful - respectful & highly motivated, ability to follow instructions, ability to work as part of a team, problem-solving skills, willingness and ability to learn, hand and eye coordination, very detail oriented and organized, ability to work independently in the shop, dependability, manual dexterity, mathematics/measuring

Certification you may be eligible to receive upon successful completion -

- OSHA-10 Safety Certification

Related careers - Ironworker, Pipefitter, Boilermaker, Assembler/Fabricator, Steam Fitter, Machinist, Tool and Die Maker, Sheet Metal Worker, Underwater Welder, Maintenance Welder, Sub Arc Operator, Construction Worker, Machine Operator

Dual Credit: WLD 125 - Gas Metal Arc & Flux Cored Arc Welding (3 credits)

Articulated Credit: WCC WLD 100 - Survey of Welding (3 credits); WLD 115 - Oxy-Fuel Welding & Cutting (3 credits); and WLD 120 - Shielded Metal Arc Welding I (3 credits)

HEALTH SCIENCE

- **Certified Nurse Assistant**
 - **Health Occupations**
 - **Sports Medicine I & II**

CERTIFIED NURSE ASSISTANT

Grades: 11, 12

Prerequisite: Good attendance record

SIS #: 14051A001

Certified Nurse Assistant is a stand-alone one-year program.

Units of study - Healthcare system, communication, infection control, safety, bed making, admission/discharge/transfers, growth and development, nutrition, body systems, positioning/transferring residents, patients with special needs, death and dying, dementia, home health, rehabilitation

Tasks you will complete -

- Perform 21 required CNA skills
- Clinical experience at local nursing home
- Provide physical support to assist nursing home residents to perform daily living activities, such as getting out of bed, bathing, dressing, using the toilet, standing, walking, or exercising
- Measure and record food and liquid intake or urinary and fecal output, reporting changes to nursing staff
- Record vital signs, such as temperature, blood pressure, pulse, or respiration rate
- Lift or assist others to lift patients to move them on or off beds
- Record height and weight of patients
- Change bed linens or make beds
- Wash, groom, or shave nursing home residents to prepare them for surgery, treatment, or examination

Skills/abilities you need to be successful - service orientation, active listening, social perceptiveness, critical thinking, reading/oral comprehension, static strength, reasoning, flexibility, arm-hand steadiness

Certification you may be eligible to receive upon successful completion -

- Illinois Department of Public Health Certified Nursing Assistant
- CPR - Healthcare Provider card

Related careers - Registered Nurse, Licensed Practical Nurse, Phlebotomist, Med Tech, Vet Tech, Dental Assistant, Dental Hygienist, Medical Assistant, Surgical Tech, Surgical Assistant, Xray Tech, Occupational Therapy Assistant, Counselor, Social Worker, Physical Therapy Assistant, Massage Therapist, Dietary Aide, Respiratory Therapy, Pharmacy Tech

Articulated Credit: WCC NAS 101 - Basic Nurse Assistant Training (6 credits)
KCC NUR 100 - Basic Nurse Assistant Training (7 credits)

HEALTH OCCUPATIONS

Grades: 11, 12
SIS #: 14002A002

Health Occupations is a stand-alone one year course.

Units of study - Infection control, safety, CPR, medical terminology, healthcare communication, legal issues/ethics, basic anatomy, nutrition in healthcare

Tasks you will complete -

- Job Shadowing of various local healthcare facilities including hospital departments - OB, Med-Surg units, Diagnostic Imaging, Surgical, ER; dental offices; veterinary clinics, EMT ride alongs
- Vital Signs
- Medical Terminology
- Communicating effectively in a healthcare setting

Skills/abilities you need to be successful - work well in a team based atmosphere, active listening, effective communication skills, displays professionalism

Certification you may be eligible to receive upon successful completion -

- CPR certification

Related careers - CNA, RN, Phlebotomist, Med Tech, Vet Tech, Dental Assistant, Dental Hygienist, Medical Assistant, Surgical Tech, Surgical Assistant, X-ray Tech, Occupational Therapy Assistant, Counselor, Social Worker, Physical Therapy Assistant, Massage Therapist, Dietary Aide, Respiratory Therapy, Pharmacy Tech

Dual Credit: WCC HIT 110 - Medical Terminology (3 credits)

Articulated Credit: KCC OS 216 - Medical Terminology (3 credits)

SPORTS MEDICINE I

Grades: 11, 12
Recommended: 70% or higher in Biology I, genuine interest in Science
SIS #: 14062A001

Sports Medicine I is the first year of a two-year sequence.

Units of study - History of Sports Medicine, careers in Sports Medicine, sport law, confidentiality, insurance, anatomical terminology & direction, emergency treatment in sport, injury, illness & healing, documentation, lower extremity injuries, axial injuries, upper extremity injuries, basic nutrition, introduction to Exercise Science concepts, fitness concepts

Tasks you will complete -

- Demonstrate an understanding of the musculoskeletal system and its components
- CPR & first aid treatments
- Taping of the foot, ankle, knee, hand, wrist, thumb & fingers
- Supportive wrapping of the knee, hip and shoulder
- Crutch and sling fitting
- Conduct an initial assessment of an athlete's injury or illness to provide emergency or continued care
- Follow basic fitness guidelines
- Demonstrate proper technique in various exercises

Skills/abilities you need to be successful - active listening, critical thinking, monitoring, speaking, active learning, deductive reasoning, oral comprehension

Certification you may be eligible to pursue upon successful completion -

- CPR - Heartsaver card

Related careers - Certified Athletic Trainer, Physical Therapist & Assistant, Occupational Therapist & Assistant, Fitness Instructor, Personal Trainer, Nurse, Sports Medicine Physician, Chiropractor

****Most of these occupations require post-secondary education**

Dual Credit: WCC KPE 150 - Basic Prevention & Care of Athletic Injuries (3 credits)

Articulated Credit: WCC KPE 150 - Basic Prevention & Care of Athletic Injuries (3 credits)

SPORTS MEDICINE II

Grade: 12
Required: 70% or higher in Sports Medicine I, genuine interest in Sports Med career
SIS #: 14062A001

Sports Medicine II is the second year of a two-year sequence.

****Students will participate in an internship rotation. Must have reliable transportation.****

Units of study - Anatomy review, advanced medical terminology, basic exercise physiology concepts, advanced evaluation/assessment techniques, personal training client assessment, program design, therapeutic modalities

Tasks you will complete -

- Apply practical skills mastered in SM I at internship sites
- Identify and use proper medical terminology in workplace
- Demonstrate accountability and responsibility through internship
- Facilitate communication between IVVC, home school and internship
- Abide by all internship policies and procedures
- Show a clear path of steps after high school
- Demonstrate a deeper knowledge of exercise science
- Prepare a professional resume
- Participate in mock interviews

Skills/abilities you need to be successful - active listening, critical thinking, monitoring, self initiative, active learning, deductive reasoning, oral comprehension, time management, superb communication

Certification you may be eligible to pursue upon successful completion -

- Personal Training Certification (18 and older)

Related careers - Certified Athletic Trainer, Physical Therapist & Assistant, Occupational Therapist & Assistant, Fitness Instructor, Personal Trainer, Nurse, Sports Medicine Physician, Chiropractor

****Most of these occupations require post-secondary education**

Dual Credit: WCC KPE 237 - Strength and Conditioning Principles (3 credits) & WCC KPE 209 - Introduction to Exercise Science & Sports Professions (3 credits)

TECHNOLOGY

- **Computer Programming I & II**
- **Computer Technology I & II**
 - **Graphic Design I & II**

Computer Programming I

Grades: 11, 12

SIS #: 10152A001

Computer Programming I is the first year of a two-year sequence.

Units of study - Functional programming, object oriented programming, computational concepts, computer engineering, robotics, automation, game development, digital sculpting/modeling, and animation

Tasks you will complete -

- Develop problem solving skills through code to solve problems
- Use digital clay to sculpt objects in Blender as well as Unreal Engine
- Design 2D, 3D, 2.5D games using the Unreal Engine as well as Blender
- Use 3D modeling to create digital animation
- Complete regular assignments; both by yourself and within groups
- Use data to create, import and edit spreadsheets as well as documents

Skills/abilities you need to be successful - participation in all projects, work well within a team, understanding of algebraic concepts and algorithms, good note taking skills and analytical thinking

Certification you may be eligible to receive upon successful completion -

- C++
- MOS Excel - Microsoft Standards
- MOS Word - Microsoft Standards
- Game Design as defined by industry standards

Related careers - Computer/Electrical Engineering, Computer Programmer (C++, Java, Python), Game Environment Developer, Unreal Engine Developer, 3D/2D Model Designer, Blender Developer, Data Entry, Word Processor, Office Management Systems

Computer Programming II

Grade: 12
Required: 70% or higher in Computer Programming I
SIS #: 10152A002

Computer Programming II is the second year of a two-year sequence.

Units of study - Functional programming, object oriented programming, computational concepts, computer engineering, robotics, automation, game development, digital sculpting/modeling, and animation

Tasks you will complete -

- Develop problem solving skills through code to solve problems
- Use digital clay to sculpt objects in Blender as well as Unreal Engine
- Design 2D, 3D, 2.5D games using the Unreal Engine as well as Blender
- Use 3D modeling to create digital animation
- Complete regular assignments; both by yourself and within groups
- Use data to create, import and edit spreadsheets as well as documents
- Support first year students with assignments and projects
- Take leadership role in regards to various class projects

Skills/abilities you need to be successful - participation in all projects, work well within a team, understanding of algebraic concepts, able to type for extended periods of time, good note taking skills, good listener

Certification you may be eligible to receive upon successful completion -

- C++
- MOS Excel - Microsoft Standards
- MOS Word - Microsoft defined standards
- Game Design as defined by industry standards
- IT-PMI**
- Business Level Novice**

**Dependent upon future career aspirations

Related careers - Computer/Electrical Engineering, Computer Programmer (C++, Java, Python), Game Environment Developer, Unreal Engine Developer, 3D/2D Model Designer, Blender Developer, Data Entry, Word Processor, Office Management Systems

Computer Technology I

Grades: 11, 12
SIS #: 10252A001

Computer Technology I is the first year of a two-year sequence.

Units of study - Desktop, laptop, and PC technology, computer components, basic wired and wireless technologies, function and installation of data networks and components

Tasks you will complete -

- Identify internal computer hardware and components
- Format hard drives and install operating systems
- Identify all types of networks and how to install them
- Diagnose and repair problems with all devices and networks

Skills/abilities you need to be successful - reading skills, basic math skills, written and verbal communication skills, basic knowledge of technology

Certification you may be eligible to receive upon successful completion -

- A+ Hardware certification COMP-TIA

Related careers - Technology help desk technician, Hardware technician, Network engineer, Systems administrator, Network security administrator

Articulated Credit: WCC CIS 105 - Introduction to Windows (1 credit)

Computer Technology II

Grade: 12
Required: 70% or higher in Computer Technology I
SIS #: 10252A002

Computer Technology II is the second year of a two-year sequence.

Units of study - Wired and wireless technologies, function and installation of data networks and components, configuration of network connectivity, using and configuring routers, switches and firewall appliances

Tasks you will complete -

- Identify network hardware and components
- Configure routers through operating systems
- Identify all types of networks and how to install them
- Diagnose and repair problems with all network devices and components
- Operate IVVC Help Desk

Skills/abilities you need to be successful - reading skills, basic math skills, written and verbal communication skills, basic knowledge of technology

Certification you may be eligible to receive upon successful completion -

- A+ Network certification COMP-TIA
- Google IT Support Certificate

Related careers - Technology help desk technician, Hardware technician, Network engineer, Systems administrator, Network security administrator.

Graphic Design I

Grades: 11, 12
SIS #: 11154A001

Graphic Design I is the first year of a two-year sequence.

Units of study - Basic computer use, basic illustrating software (Illustrator), photo editing software (Photoshop, Bridge), publishing software (InDesign), basic equipment use for mock-up tools, presentation tools, vinyl cutter, vinyl and heat transfer equipment, basic use of a digital camera

Tasks you will complete -

- Determine arrangement of illustrative material and select style and size of type
- Create designs, concepts, and sample layouts, based on knowledge of layout principles and color theory
- Develop graphics and layouts for product illustrations
- Use computer software to generate new images
- Use computer software to edit photographs
- Review final layouts and suggest improvements as needed to peers
- Maintain organized portfolio of images, photos, or previous work products
- Prepare illustrations or rough sketches of material
- Use digital cameras, filters and tripods
- Determine desired images and picture composition, selecting and adjusting subjects, equipment, and lighting to achieve desired effects

- Adjust apertures, shutter speeds, and camera focus based on a combination of factors such as lighting, field depth and subject motion
- Transfer photographs to computers for editing, archiving, and electronic transmission

Skills/abilities you need to be successful - active listening, critical thinking, speaking in front of peers/clients, group work, reading comprehension, active learning, decision making, time management, following instructions, creativity, coordination

Related careers - Advertising, Desktop Publisher, Art Director, Photographer, Multimedia Artist, Project Management, Promotions Manager, Artist, Creative Director, Creative Manager, Design Director, Designer, Graphic Artist, Graphic Designer, Online Producer, Production Artist, Publications Designer

Graphic Design II

Grade: 12

Required: 70% or higher in Graphic Design I

SIS #: 11154A002

Graphic Design II is the second year of a two-year sequence.

Units of study - Computer use, advanced illustrating software (Illustrator), photo editing software (Photoshop), publishing software (InDesign), equipment use for mock-up tools, presentation tools, vinyl cutter, vinyl and heat transfer equipment, advanced use of a digital camera, customer service

Tasks you will complete -

- Determine arrangement of illustrative material and select style and size of type
- Confer with clients to discuss and determine job specifications
- Create designs, concepts, and sample layouts, based on knowledge of layout principles and color theory
- Develop graphics and layouts for product illustrations
- Use computer software to generate new images
- Use computer software to edit photographs
- Review final layouts and suggest improvements as needed to peers
- Maintain organized portfolio of images, photos, or previous work products
- Prepare illustrations or rough sketches of material, discuss with clients or instructor and make necessary changes
- Draw and print illustrations and other artwork using computer
- Research new software or design concepts
- Study illustrations and photographs to plan presentation of materials, products or services (when necessary)
- Act as a mentor / role model to first year students
- Use digital cameras, filters and tripods
- Determine desired images and picture composition, selecting and adjusting subjects, equipment, and lighting to achieve desired effects
- Adjust apertures, shutter speeds, and camera focus based on a combination of factors such as lighting, field depth and subject motion
- Transfer photographs to computers for editing, archiving, and electronic transmission

Skills/abilities you need to be successful - active listening, critical thinking, speaking in front of peers/clients, group work, reading comprehension, active learning, decision making, time management, following instructions, creativity, coordination

Related careers - Advertising, Desktop Publisher, Art Director, Photographer, Multimedia Artist, Project Management, Promotions Manager, Artist, Creative Director, Creative Manager, Design Director, Designer, Graphic Artist, Graphic Designer, Online Producer, Production Artist, Publications Designer

PUBLIC SAFETY

- **Emergency Medical Services**
 - **Fire Science I & II**
 - **Law Enforcement I & II**

EMERGENCY MEDICAL RESPONDER

Grades: 11, 12

SIS #: 14002A003

Emergency Medical Responder is a stand-alone junior or senior program but can also be part of the Emergency Medical Services two-year sequence.

Units of study - EMS professional culture, workforce safety and wellness, communications, anatomy and physiology, patient assessment and stabilization, airway management, emergency preparedness and disaster planning

Tasks you will complete -

- Treat medical emergencies
- Inform medical professionals regarding patient conditions and care
- Monitor patient progress or responses to treatments
- Record patient medical histories
- Prepare plans that outline operating procedures to be used in response to disasters or emergencies, such as hurricanes, nuclear accidents, and terrorist attacks, and in recovery from these events
- Ride-alongs with local fire departments

Skills/abilities you need to be successful - effective communication skills, integrity, composure and a reassuring manner, ability to follow instructions, ability to work as part of a team, problem-solving skills, patience, understanding and sensitivity, confidence and resilience, adaptability and flexibility, sound judgment, courage, decisiveness, quick reactions and the ability to stay calm in difficult circumstances, critical thinking

Certification you may be eligible to receive upon successful completion -

- American Heart Association BLS CPR
- FEMA NIMS (National Incident Management System) 100: Introduction to the Incident Command System; NIMS 200 ICS (Incident Command System) for Single Resources and Initial Action Incidents; NIMS 700: National Incident Management System, An

Introduction; NIMS 800: National Response Framework, An Introduction; NIMS IS 5: An Introduction to Hazardous Materials

- NREMT Emergency Medical Responder Certification Related careers - EMT, Paramedic, Firefighter, Emergency Services Director, Hazard Mitigation Officer, Public Safety Director
- National Fallen Firefighters "Courage to be Safe" Certification

Dual Credit: JJC EMS 101 - First Responder (4 credits)

EMERGENCY MEDICAL TECHNICIAN

Grade: 12

SIS #: 14055A001

Emergency Medical Technician is a stand-alone senior only program but can also be part of the Emergency Medical Services two-year sequence.

Units of study - EMS professional culture, workforce safety and wellness, medical, legal and ethical issues, communications, anatomy and physiology, medical terminology, patient assessment, trauma management, medical emergency management, pharmacology, airway management, shock management and resuscitation, EMS operations and the team approach to health care

Tasks you will complete -

- Treat medical emergencies
- Operate diagnostic or therapeutic medical instruments or equipment
- Inform medical professionals regarding patient conditions and care
- Monitor patient progress or responses to treatments
- Record patient medical histories
- Analyze patient data to determine patient needs or treatment goals
- Administer non-intravenous medications
- Clinical experience at local emergency room
- Ride-alongs with local fire departments

Skills/abilities you need to be successful - effective communication skills, integrity, composure and a reassuring manner, ability to follow instructions, ability to work as part of a team, problem-solving skills, patience, understanding and sensitivity, confidence and resilience, adaptability and flexibility, sound judgment, courage, decisiveness, quick reactions and the ability to stay calm in difficult circumstances, critical thinking

Certification you may be eligible to receive upon successful completion -

- American Heart Association BLS CPR
- IL State EMT-B License or NREMT Certification
- National Fallen Firefighters "Courage to be Safe" Certification

Related careers - ER Tech, Medical Assistant, Paramedic, Firefighter, Nurse, Physician Assistant

Articulated Credit: WCC EMT 120 - Emergency Medical Technician - Basic (9 credits)

FIRE SCIENCE I

Grades: 11, 12

SIS #: 15152A001

Fire Science I is the first year of a two-year sequence.

Units of study - OSFM Basic Operations Firefighter curriculum: cognitive and psychomotor components to Basic Operations Firefighter, Fire Service Vehicle Operator, Technical Rescue Awareness, Basic First Aid, AHA CPR and AED and NIMS 100 and 700

Tasks you will complete -

- Function safely and ethically as a basic firefighter within the organization of the fire department
- Identify hazards and take proper safety measures to operate at an emergency scene by applying knowledge of fire behavior, building construction, and communications
- Safely and effectively operate in an IDLH atmosphere using self contained breathing apparatus
- Use a portable extinguisher to properly extinguish all classes of fire
- Use various types of ropes and knots in an emergency scene setting
- Utilize the proper fire hose, appliances, nozzles, stream and water supply to extinguish fires
- Gain access to structures to perform rescues through proper forcible entry and ladder usage
- Properly ventilate a structure to facilitate rescues and fire extinguishment using ladders and ventilation tools and techniques
- Perform a scene size-up considering risk and savable victims, and use proper technique to search a structure and remove victims
- Apply the techniques of fire extinguishment including wildland fires from both an offensive and defensive attack
- Describe the role of fire prevention and fire protection systems on public safety
- Utilize knowledge of situational awareness, rapid intervention teams, and scene hazards to operate safely and survive on the fire ground

Skills/abilities you need to be successful - effective communication skills, integrity, composure, and a reassuring manner, ability to follow instructions, ability to work as part of a team, problem-solving skills, patience, understanding, and sensitivity, confidence and resilience, adaptability and flexibility, sound judgment, courage, decisiveness, quick reactions, and the ability to stay calm in difficult circumstances, willingness and ability to learn on a continued basis, interest in promoting community safety, education, and risk prevention

Certification you may be eligible to receive upon successful completion - Must be employed by a Fire Department and 18 years old to challenge OSFM state exams.

- Office of the State Fire Marshal Basic Operations Firefighter
- Office of the State Fire Marshal Technical Rescue Awareness
- Office of the State Fire Marshal Fire Service Vehicle Operator
- American Heart Association CPR and AED
- FEMA NIMS (National Incident Management System) 100: Introduction to the Incident Command System; NIMS 700: National Incident Management System, An Introduction

- National Fallen Firefighters "Courage to be Safe" Certification

Related careers - Volunteer firefighter, Probationary firefighter, Contract firefighter, Industrial firefighter

Dual Credit: WCC FSC 105 - Basic Operations Firefighter Module A (4 credits); FSC 115 - Basic Operations Firefighter Module B (4 credits); FSC 118 - Basic Operations Firefighter Module C (4.5 credits); and FSC 215 - Technical Rescue & Vehicle Operations (.5 credit).

Articulated Credit: WCC FSC 105 - Basic Operations Firefighter Module A (4 credits); FSC 115 - Basic Operations Firefighter Module B (4 credits); FSC 118 - Basic Operations Firefighter Module C (4.5 credits) and FSC 215 - Technical Rescue & Vehicle Operations (.5 credit).

FIRE SCIENCE II

Grade: 12
 Required: 70% or higher in Fire Science I
 SIS #: 15152A002

Fire Science II is the second year of a two-year sequence.

Units of study - OSFM Advanced Technician Firefighter curriculum: the cognitive and psychomotor relevant to a journeyman firefighter, OSFM Vehicle Machinery Operations, Hazardous Materials Awareness/Operations, and Rope Operations, NIMS 200 and 800

Tasks you will complete -

- Demonstrate the need for the Incident Command System
- Demonstrate how to complete a basic NFIRS incident report
- Demonstrate how to determine developing hazardous building conditions
- Demonstrate operating hose testing equipment and nozzles
- Demonstrate using a Pitot tube and gauge to read and record flow GPM, static pressures and flow pressures
- Demonstrate operating power plants, power tools, and lighting equipment
- Demonstrate the ability to operate hand and power tools and special forcible entry/exit needs
- Demonstrate the ability to operate hand and power tools for forcible entry
- Demonstrate the role of the advanced firefighter in ventilation operations
- Demonstrate attack techniques and coordinate fire attack for various types of structure fires
- Demonstrate the ability to identify the components of a fire suppression and detection system
- Demonstrate assembling a Rapid Intervention Team (RIT) with proper tools and equipment to function as a RIT team when a mayday is called
- Demonstrate the ability to assist rescue teams and establish public barriers when assigned

Skills/abilities you need to be successful - In addition to Fire Science 1, ability to assist substitute instructor in absence of instructor, ability to lead class in daily roll call (attendance,

Pledge of Allegiance, LODD bell ceremony), ability to lead a class company during individual skills and company scenarios, Class Honor Guard

Certification you may be eligible to receive upon successful completion - Must be employed by a Fire Department and 18 years old to challenge OSFM state exams.

- Office of the State Fire Marshal Advanced Technician Firefighter
- Office of the State Fire Marshal Hazardous Materials Awareness/Operations
- Office of the State Fire Marshal Vehicle Machinery Operations
- Office of the State Fire Marshal Rope Operations
- FEMA NIMS (National Incident Management System) 200 ICS (Incident Command System) for Single Resources and Initial Action Incidents and NIMS 800: National Response Framework, An Introduction.

Related careers - Volunteer firefighter, Probationary firefighter, Contract firefighter, Industrial firefighter, Fire Service Officer, Fire Fighting Instructor, Specialty Certifications (Technical Rescue and Hazardous Materials)

Dual Credit: FSC 120 Hazardous Materials Operations (3 credits); WCC FSC 125 - Advanced Technician Firefighter (4 credits); and FSC 150 - Vehicle Machinery Operations (3 credits).

Articulated Credit: WCC FSC 120 - Hazardous Materials Operations (3 credits); FSC 125 - Advanced Technician Firefighter (4 credits); and FSC 150 - Vehicle Machinery Operations (3 credits).

LAW ENFORCEMENT I

Grades: 11, 12
SIS #: 15054A001

Law Enforcement I is the first year of a two-year sequence.

Units of study - History of Law Enforcement, tools used in law enforcement, criminal law and offenses, Illinois Vehicle Code, including DUI and accidents, search and seizure, use of force, combat tactics and force mitigation, courts and courtroom procedures, crime scene investigations, firearms training, investigate crimes in progress

Tasks you will complete -

- Record facts to prepare reports that document incidents and activities
- Review facts of incidents to determine if criminal act or statute violations were involved
- Gather information
- Drill and ceremony used by military
- Identify elements of a crime
- Utilize resources to complete projects
- Defend one's personal space
- Respond to simulated crimes in progress
- Simulate effective detainment of suspects and offenders
- Conduct simulated searches of both people, property and vehicles

Skills/abilities you need to be successful - integrity, dependability, self-control, active listening, critical thinking, public speaking, one-to-one speaking, conflict resolution, reading comprehension, judgment and decision making, time management, writing, active learning, negotiation

Related careers - Sheriff, State Police, Conservation Officer, Federal Agent, Process Server, Bailiff, Parole Officer, Correctional Officer, Security Guard, Forensic Specialist, Detective, Private Investigator, Emergency Medical Tech, SWAT Officer, Juvenile Officer

Articulated Credit: KCC CRJ 101 - Introduction to Criminal Justice (3 credits)

LAW ENFORCEMENT II

Grade: 12
Required: 70% or higher in Law Enforcement I
SIS #: 15054A002

Law Enforcement II is the second year of a two-year sequence.

Units of study - Investigating violent crimes, interviewing and interrogation, investigating crimes against children, investigating crimes against property, investigating terrorism, search and seizure, use of force, combat tactics and force mitigation, courts and courtroom procedures, crime scene investigations, firearms training

Tasks you will complete -

- Record facts to prepare reports that document incidents and activities
- Review facts of incidents to determine if criminal act or statute violations were involved.
- Gather information
- Identify elements of a crime
- Utilize resources to complete projects
- Defend one's personal space
- Respond to simulated crimes in progress
- Simulate effective detainment of suspects and offenders
- Conduct simulated searches of both people, property and vehicles

Skills/abilities you need to be successful - integrity, dependability, self-control, active listening, critical thinking, public speaking, one-to-one speaking, conflict resolution, reading comprehension, judgment and decision making, time management, writing, active learning, negotiation

Related careers - Sheriff, State Police, Conservation Officer, Federal Agent, Process Server, Bailiff, Parole Officer, Correctional Officer, Security Guard, Forensic Specialist, Detective, Private Investigator, Emergency Medical Tech, SWAT Officer, Juvenile Officer

Articulated Credit - KCC CRJ 201- Criminal Investigations (3 credits)

HUMAN SERVICES

- **Cosmetology I & II**

- Culinary Arts I & II
- Esthetics & First Aid
- Teaching Methods I & II

COSMETOLOGY I & II (at off-site locations)

Grades: 11, 12
 SIS #: 19101A001
 19101A002

Cosmetology is a two-year sequence taught off-site at Debutantes in Dekalb, Hair Professionals in Oswego or Sycamore, or Franklin Cosmetology Institute in Morris.

Units of study - Basic training, practical chemical application/hair treatment, hair styling/hairdressing, shop management, sanitation and interpersonal relations, esthetics, and nail technology

Tasks you will complete -

- Keep workstations clean and sanitize tools, such as scissors and combs
- Bleach, dye, or tint hair, using applicator or brush
- Cut, trim and shape hair or hairpieces, based on customers' instructions, hair type and facial features, using clippers, scissors, trimmers and razors
- Schedule client appointments
- Shampoo, rinse, condition, and dry hair and scalp or hair pieces with water, liquid soap, or other solutions
- Comb, brush, and spray hair or wigs to set style

Skills/abilities you need to be successful - active listening, speaking, service orientation, near vision, arm-hand steadiness, finger dexterity, manual dexterity

Certification you may be eligible to receive upon successful completion -

- IL Department of Financial and Professional Regulations cosmetology license

Related careers - Barber, Beautician, Cosmetologist, Hairdresser, Hairstylist, Manicurist/Pedicurist, Esthetician

CULINARY ARTS I

Grades: 11, 12
 SIS #: 16052A001

Culinary Arts I is the first year of a two-year sequence.

Units of study - Sanitation, Knife Skills, Nutrition, Customer Service, Intro to Baking and Cooking Methods, Culinary Math and Measuring, Culinary Professionalism

Tasks you will complete -

- Clean and sanitize work areas, equipment, utensils, dishes, or silverware
- Store food in designated containers and storage areas to prevent spoilage
- Portion and wrap the food, or place it directly on plates for service to patrons
- Take and record temperature of food and food storage areas, such as refrigerators and freezers
- Prepare a variety of foods, such as meats, vegetables, or desserts, according to customers' orders, recipes or Chef's instructions, following approved procedures
- Execute recipes for consistency and cost controls
- Prepare, present and evaluate food using culinary language to describe flavor, texture and overall presentation

Skills/abilities you need to be successful - active listening, coordination, service orientation, social perceptiveness, arm-hand steadiness, manual dexterity, verbal and nonverbal communication, finger dexterity, basic math and measuring, ability to stand for long periods, time management

Certification you may be eligible to receive upon successful completion -

- ServSafe Food Handler Certification

Related careers - Certified Executive Chef, Chef, Instructor, Cook, Executive Sous Chef, Line Cook, Server, Front of House Manager, Purchasing Manager, Banquet Manager

CULINARY ARTS II

Grade: 12
Required: 70% or higher in Culinary Arts I
SIS #: 16055A001

Culinary Arts II is the second year of a two-year sequence.

Units of study - Sanitation, Knife Skills, Nutrition, Customer Service, Baking and Decorating Cooking Methods, Culinary Professionalism, Recipe and Menu Development, Food Costing and Portioning, Purchasing and Inventory Controls, Culinary Leadership/Management

Tasks you will complete -

- Monitor sanitation practices to ensure that employees follow standards and regulations
- Check the quality of raw or cooked food products to ensure that standards are met
- Estimate amounts and costs of required supplies, such as food and ingredients
- Instruct cooks or other workers in the preparation, cooking, garnishing, or presentation of food
- Supervise or coordinate activities of cooks or workers engaged in food preparation
- Engage in providing excellent customer service
- Develop menus with appropriate recipes and costing
- Communicate effectively with team members, customers and community business partners
- Operate a Point of Sale System with accuracy

Skills/abilities you need to be successful - quality food production, customer service, manage peers, monitoring food quality, coordination, self management, social perceptiveness, strong verbal communication, problem solving, information prioritization and arrangement, professional conflict resolution

Certification you may be eligible to receive upon successful completion -

- ServSafe Food Manager Certification

Related careers - Certified Executive Chef, Chef, Instructor, Cook, Executive Sous Chef, Line Cook, Server, Front of House Manager, Purchasing Manager, Banquet Manager

ESTHETICS & FIRST AID (at Kishwaukee College)

Grades: 11, 12

SIS #: 14002A002

Esthetics & First Aid is a stand-alone one year course at the high school level. It satisfies two of four pre-admission requirements for the Kishwaukee College Esthetics Certificate program.

Units of study - Administering basic first aid, adult, child, and infant CPR, history of esthetics and career opportunities available to Licensed Estheticians, professionalism, proper communication, infection control, draping and the physical components of the esthetics environment

Tasks you will complete -

- Examine clients' skin, using magnifying lamps or visors when necessary, to evaluate skin condition and appearance
- Cleanse clients' skin with water, creams, or lotions
- Demonstrate how to clean and care for skin properly and recommend skin-care regimens
- Select and apply cosmetic products, such as creams, lotions, and tonics
- Sterilize equipment and clean work areas

Skills/abilities you need to be successful - active listening, service orientation, critical thinking, social perceptiveness, near vision, speech clarity and recognition, arm-hand steadiness, finger/manual dexterity, attention to detail

Certification you may be eligible to receive upon successful completion -

- Two classes toward the Illinois Department of Financial and Professional Regulations Licensed Esthetician Certificate

Related careers - Dermatologist, Plastic Surgeon, Spa/Salon/Resort Skincare Specialist, Make-up Artist, Skincare Product Marketing, Purchasing or Consulting

Dual Credit: KCC EST 100 - Introduction to Esthetics (1 credit)
KCC PE 162 - First Aid & Emergency Response (3 credits)

TEACHING METHODS I

Grades: 11, 12
SIS #: 19152A001

Teaching Methods I is the first year of a two-year sequence where you will interact with children in a fully run student-taught preschool.

Units of study - Health, nutrition, safety, observation and guidance, family and community relationships, personal and professional development, child development from birth to 12 years, preschool social, emotional, physical, cognitive, and language development, preschool types, child development theories, establishing classroom limits, curriculum development

Tasks you will complete -

- Establish and enforce rules for behavior and procedures for maintaining order
- Organize and lead activities designed to promote physical, mental, and social development, such as games, arts and crafts, music, storytelling, and field trips
- Teach basic skills, such as colors, shape, number and letter recognition, personal hygiene, and social skills
- Observe and evaluate children's performance, behavior, social development, and physical health
- Read books to entire classes or to small groups

Skills/abilities you need to be successful - comfortable speaking to peers, parents and children, selecting and using appropriate training/instructional methods and procedures, instructing, active listening, establishing and maintaining interpersonal relationships, originality

Certification you may be eligible to receive upon successful completion -

- Gateways to Opportunity Level 1 Certification
- CPR - Heartsaver card

Related careers - Social and Human Service Assistants, Kindergarten Teachers, except Special Education, Self-Enrichment Education Teachers, Teacher Assistants, Nannies, Preschool Teacher, Children's Librarian, Child Advocacy, Counselor, Social Worker

TEACHING METHODS II

Grade: 12
Required: 70% or higher in Teaching Methods I
SIS #: 19151A001

Teaching Methods II is the second year of a two-year sequence where you will interact with children in a fully run student-taught preschool.

Units of study - Responsibilities of parenting, encouraging learning and brain development from 1 to 3 and 4 to 6, children's health and safety, family challenges, children with special needs, child abuse and neglect, child care options, participating in early childhood education, careers in early education, theories and theorists, internship opportunities in local schools

Tasks you will complete -

- Establish and enforce rules for behavior and procedures for maintaining order

- Organize and lead activities designed to promote physical, mental, and social development, such as games, arts and crafts, music, storytelling, and field trips
- Teach basic skills, such as colors, shapes, number and letter recognition, personal hygiene, and social skills
- Observe and evaluate children's performance, behavior, social development, and physical health
- Read books to entire classes or to small groups
- Lead and conduct parent teacher conferences with preschool parents
- Be a positive role model to first year students
- Give constructive criticism to peers

Skills/abilities you need to be successful - comfortable speaking to peers, parents and children, selecting and using appropriate training/instructional methods and procedures, instructing, active listening, establishing and maintaining interpersonal relationships, originality

Related careers - Social and Human Service Assistants, Kindergarten Teachers, except Special Education, Self-Enrichment Education Teachers, Teacher Assistants, Nannies, Preschool Teacher, Children's Librarian, Child Advocacy, Counselor, Social Worker

Articulated Credit: WCC ECE 101 - Introduction to Early Childhood Education (3 credits)
KCC ECE 112 - Guiding Young Children (3 credits)

JJC - Joliet Junior College

KCC - Kishwaukee Community College

WCC - Waubensee Community College

1/11/21

Indian Valley Vocational Center is owned and operated by 10 school districts:

- Earlville District #9
- Hinckley-Big Rock District #429
- Indian Creek District #425
- Leland District #1
- Newark District #18
- Plano District #88
- Sandwich District #430
- Serena District #2
- Somonauk District #432
- Yorkville District #115

Students from these districts attend IVVC during their junior and senior years in the morning or afternoon. Students who attend IVVC are selected by their own district's criteria for attendance at IVVC.

Students enrolled in all IVVC programs will be expected to participate in routine physical activities on a daily basis that will foster the development of movement skills and enhance health-related fitness.

NOTICE OF NON-DISCRIMINATION

Indian Valley Vocational Center insures equal educational opportunities are offered to students regardless of race, color, national origin, age, sex, religion, or disability. Questions in reference to educational opportunities may be directed to:

Joe Barbic, Director
Indian Valley Vocational Center
600 Lions Road
Sandwich, Illinois 60548