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MIAMI  VALLEY
CAREER TECHNOLOGY CENTER
Adult Education

The Miami Valley Career Technology Center affirms that equal opportunities are offered without regard to race, religion, color, national origin, ancestry, age, sex, sexual orientation, handicap, marital status, or veteran status.

For more information, go to mvctc.com/ae or call 937-854-6297

Career Programs

The Adult Education Program at MVCTC offers a wide range of Career Programs that can start you on the path to a new career.



Aviation Maintenance Technician

Program Description:

The Aviation Maintenance Technician (AMT) program is designed to provide the knowledge and skills to become an aircraft mechanic. Students will be trained to service, repair, and overhaul aircraft components and systems. Successful completion of this program will prepare students to sit for the Federal Aviation Administration (FAA) Airframe and PowerPlant certification tests.

Program Goals:

- Apply basic concepts of theory in system and component operation and maintenance
- Develop knowledge of airframe structural design, power plant theory, and aircraft systems
- Demonstrate FAA and manufacturer approved and/or acceptable methods of maintenance, preventative maintenance, and alterations to airframe, power plants, and appliances of aircraft
- Develop skills to troubleshoot, diagnose, and repair aircraft, power plants, and components
- Become proficient in skills and techniques of aircraft inspections, maintenance, preventative maintenance, and alteration of aircraft, power plants and appliances
- Interpret and apply Federal Aviation Regulations (FAR's) to ensure aircraft safety and meet the Federal Aviation standards of airworthiness

Courses Taught:

General-related topics include: aircraft drawings, basic electricity, ground operation & servicing, fluid lines and fittings, materials & processes, corrosion control, mechanic privileges & limitations, maintenance forms & records, aircraft weight & balance. **Airframe-related topics include:** wood structures, sheet metal, bonded structures, assembly and rigging, environmental systems, utility and warning, hydraulics and pneumatics, landing gear, airframe electrical, airframe fuel systems, and airframe inspection. **Power plant-related topics include:** lubrication, ignition and starting systems, turbine and reciprocating engines, propellers, electrical, instruments, fire protection, fuel systems and inspections.



Carpentry

Program Description:

The Carpentry program is intended to provide the skills and technical knowledge for entry into the field of residential and/or commercial carpentry.

Program Goals:

- Learn blueprint reading and follow necessary plans
- Identify materials used in residential, commercial, and industrial construction
- Demonstrate fabrication, framing, and estimating
- Be able to follow site safety and layout procedures
- Learn teamwork, work ethic, and necessary communications skills
- Recognize and use tools of the trade to fabricate, erect, install, and repair various structures and fixtures

Courses Taught:

CPR, OSHA 30, NCCER Core, Level 1, Level 2, Level 3, and Level 4



Central Service/Sterile Processing Technician

Program Description:

The Central Service/Sterile Processing Technician program is designed to provide the student with the necessary knowledge and skills to function as an effective sterile processing technician. Job duties of this position include cleaning and decontamination of supplies and equipment, checking and preparing equipment for sterilization, delivering and picking up of supplies to and from medical/surgical areas, and utilizing technology to maintain units of inventory. Course preparation includes Human Anatomy, Microbiology, Decontamination, Sterilization, Inventory Control and Instrumentation Processing.

Program Goals:

- Demonstrate proper procedures for decontamination, preparation, and packaging of instrumentation, sterilization, storage, and distribution
- Differentiate between clean versus contaminated
- Distinguish between sterile versus non-sterile
- Identify devices as to critical, semi-critical, or non-critical depending upon intended use by the caregiver
- Prepare for Certified Registered Central Service Technician (CRCST) examination

Course Taught:

Central Service/Sterile Processing Technology



Dental Assisting

Program Description:

Dental Assistants perform a variety of patient care, office, and laboratory duties. Job responsibilities include sterilizing and disinfecting equipment, tray setup preparation, performing dental X-rays, assisting with medical or dental emergencies, instructing patients on oral health care, and tracking dental supplies and equipment inventory. Dental Assistants with office duties schedule appointments, keep treatment records, and order supplies and materials. Most dental assistants work in private dental offices. Successful students will receive their radiographer's certification and be eligible to take the Commission on Ohio Dental Assistants Certification Examination (CODA).

Program Goals:

- Utilize dental assisting skills in providing safe, prudent care to meet patients' dental needs
- Demonstrate competency and critical thinking in the performance of dental skills
- Utilize effective interpersonal relationships with clients, peers, and members of a health care team
- Recognize the importance of professional growth by acquiring knowledge and skills through continuing education
- Consistently demonstrate professional behavior as a member of a health care team
- Demonstrate knowledge and skills required to pass the Ohio Dental Assisting Certification examination

Courses Taught:

Sciences in Dentistry, Preventive Practices in Dentistry, Comprehensive Dentistry I and II, Dental Radiography, Business Administration, Comprehensive (CODA) Review Part I and II, Capstone Seminar, Clinical Externship



Electrician

Program Description:

The purpose of the Electrician program is to provide a basic core of instruction and practical lab experience to prepare students for employment in electrical trades. Electricians may choose to work in residential and/or commercial electrical construction or industrial electrical maintenance.

Program Goals:

- Demonstrate electrical safety practices
- Calculate load in various systems
- Knowledge of motor control and relay logic
- Learn programmable controllers and ladder logic
- Install, maintain, troubleshoot, and repair electrical devices, components, and equipment
- Knowledge of electrical codes and standards, blueprint reading, and wiring diagrams

Courses Taught:

CPR, OSHA 30, NCCER Core, Electrical 1, Electrical 2, Electrical 3, Industrial Wiring, Motor Controls 2, AC Drives and Motors, Programmable Logic Controllers 1, Programmable Logic Controllers 2, Programmable Logic Controllers 3



Eye Care / Ophthalmic Assistant

Program Description:

The Ophthalmic Assistant Program is designed to train the Ophthalmic Assistant to become a key member of the healthcare team and provide quality eye care to patients in eye care facilities. Job responsibilities taught include obtaining vision measurements for glasses, administering eye exercise, taking medical histories from patients, providing contact lens instruction, conducting diagnostic tests, and office management procedures.

Program Goals:

- Create a knowledge base essential for the duties of the ophthalmic assistant, and utilize these skills in providing safe, prudent care to meet patients' needs
- Provide professional and ethical training of students in classroom and clinical settings
- Experience the roles and responsibilities of the ophthalmic assistant through a clinical rotation
- Demonstrate skillful and accurate data collection to be used by the ophthalmologist or optometrist for diagnostic purposes
- Consistently demonstrate professional and ethical behavior as a member of the health care team
- Demonstrate competency and critical thinking in the performance of ophthalmic assistant skills and office procedures
- Demonstrate knowledge and skills required to pass the Certified Ophthalmic Assistant Examination

Courses Taught:

Professional Skills; Basic Ocular Anatomy, Physiology and Terminology; Basic and Intermediate Ophthalmic Testing; Advanced Ophthalmic Testing and Imaging; Ophthalmic and Advanced Optics; Optical, Advanced Optical, and Basic Contact Lens Dispensing; Office Management Procedures; Ocular Disorders/ Pathophysiology & Ocular Pharmacology I and II; Senior Seminar; Clinical Rotation



Heating, Ventilation, Air Conditioning & Refrigeration (HVAC-R)

Program Description:

The Heating, Ventilation, Air Conditioning and Refrigeration Technology (HVAC-R) program trains technicians to install, maintain, and repair residential, commercial, and industrial refrigeration and air conditioning systems.

Program Goals:

- Know the necessary health and safety practices in the trade
- Describe the sequence of operation of HVAC-R equipment
- Read and use blueprints, design specifications, and manufacture instructions
- Fabricate sheet metal components for duct work
- Solder & braze fittings for necessary connections
- Perform an HVAC-R load calculation on a complete system
- Properly use pipe cutters, benders, acetylene torches, voltmeters, thermometers, pressure gauges, and manometers
- Diagnose problems, test and overhaul compressors, test relays and thermostats

Courses Taught:

CPR, OSHA 30, NCCER Core, HVAC-R I, HVAC-R II, HVAC-R III, HVAC-R IV



Heavy Equipment Operations

Program Description:

The purpose of the Heavy Equipment Operations program is to prepare individuals to apply technical knowledge and skills to operate and maintain a variety of heavy equipment. The mission of the Heavy Equipment Operations program is to prepare students with the skills, knowledge, and credentials to obtain employment and to become leaders in the heavy equipment and construction industry with high standards.

Program Goals:

- Know the necessary health and safety practices in the trade
- Perform operational techniques on numerous pieces of equipment
- Identify grades, grade stakes, and related tools
- Interpret civil drawings and related site maps
- Understand soil characteristics and solve related issues that may prevail
- Utilize necessary operations that increase work completion and efficiency

Courses Taught:

CPR, OSHA 30, NCCER Core, Heavy Equipment Operations Level 1, Heavy Equipment Operations Level 2, Heavy Equipment Operations Level 3



Medical Assisting

Program Description:

The Medical Assisting program is designed to help students become proficient in the areas of administrative and certain clinical responsibilities performed in a medical office. Topics will include scheduling appointments, maintaining medical records, as well as billing and insurance form coding. Skills taught are taking and recording vital signs and medical histories, preparing patients for examination, assisting physician with examination, drawing blood, taking electrocardiograms, removing sutures and administering medications as directed by the physician. At the completion of the program graduates meet training qualifications to be eligible for the Certified Medical Assistant (CMA) exam from the American Association of Medical Assistants (AAMA). The Miami Valley Career Technology Center Medical Assisting program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Curriculum Review Board (Medical Assisting Education Review Board "MAERB"). Commission on Accreditation of Allied Health Education Programs (CAAHEP) 25400 US Highway 19 N, Suite 158, Clearwater, FL 33756, (727) 210-2350 FAX (727) 210-2354 www.caahep.org, MAERB 20 N Wacker Drive Suite 1575, Chicago, IL 60606 (800) 226-2262

Program Goals:

- Prepare competent entry-level medical assistants in the cognitive (knowledge), psychomotor (skills), and the affective (behavior) learning domains
- Demonstrate accepted professional, communication, and interpersonal skills in the healthcare setting
- Utilize medical assisting skills in providing safe, prudent care to meet patients' healthcare needs
- Identify the Medical Assistant scope of practice and career opportunities
- Demonstrate competency and critical thinking in the performance of medical assisting skills in a healthcare setting

Courses Taught:

Anatomy and Physiology I and II, Communication, Math, Office Procedures I, II, and III, Computer I and II, Skills I and II, Pharmacology I, II, and III, Ethics, Growth and Development, Nutrition, Clinical Observations, Work Environment, Personal and Professional Development, Capstone Content Review, Clinical Externship.



Nurse Aide Training Program

Program Description:

The Nurse Aide training program is designed to prepare the student to perform the responsibilities of a State Tested Nurse Aide (STNA) and to successfully pass the Exam. These responsibilities include assisting patients with activities of daily living (bathing, bed making, feeding, and ambulation), taking vital signs, and assisting the nurse with basic procedures.

Program Goals:

- Discuss the role and responsibility of the Nurse Aide
- Demonstrate knowledge of accepted infection control practices
- Exhibit the ability to follow Safety and Emergency procedures
- Verbalize Resident's Rights
- Demonstrate basic nursing skills
- Exhibit competency in personal care skills
- Discuss mental health and social service needs
- Exhibit competency in basic restorative care
- Student will be prepared for the STNA Written & Skill Exams

Courses Taught:

Nurse Aide Training, Clinical Experience



Paramedic

Program Description:

Students completing the Paramedic program acquire the skills to serve patients in need. Candidates for this program must hold a current Emergency Medical Technician Certification. Training included will allow the student to provide emergency medical care of the patient at the emergency scene and in transit to the receiving medical facility for purposes of records and diagnostics. The Paramedic program is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). Commission on Accreditation of Allied Health Education Programs 25400 US Highway 19 N., Suite 158, Clearwater, FL 33756, (727) 210-2350 www.caahep.org. To contact CoAEMSP: 8301 Lakeview Parkway Suite 111-312, Rowlett, TX 75088, 214-703-8445, FAX 214-703-8992, www.coaemsp.org.

Program Goals:

- Be able to provide immediate care to the critically ill or injured
- Learn to function with authority and good judgment in a variety of circumstances
- Report verbally and in writing necessary observations
- Demonstrate the ability to deal with challenging emotional, ethical, and spiritual issues
- Efficiently perform climbing, balancing, reaching, feeling, talking, and listening to best care for the patient

Courses Taught:

Preparatory; Airway and Medical Emergencies; Cardiology; Trauma; Pediatrics, Geriatrics and Special Patient Populations; Capstone



Practical Nursing

Program Description:

The Practical Nursing program is designed to enable the student to become a Licensed Practical Nurse (LPN) and a key member of the healthcare team that cares for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. Responsibilities taught include administration of prescribed medications and intravenous fluids, patient observation, documentation, basic patient care, data collection, measuring vital signs, dressing changes, performing catheterizations, and tracheostomy care. At the completion of the program, graduates meet training qualifications to be eligible for the NCLEX licensure exam.

Program Goals:

- Apply nursing concepts and critical thinking based on biopsychosocial, cultural, ethnic, and spiritual aspects of individual patients across the life span
- Utilize the nursing process in providing safe, prudent care to meet patients' human needs and demonstrate critical thinking when performing clinical nursing skills
- Integrate theory of injury, disability, and disease processes in relationship to the biopsychosocial, cultural, ethnic, and spiritual health needs of the individual client, utilizing adaptation methods
- Demonstrate competency and critical thinking in the performance of clinical nursing skills
- Utilize effective interpersonal relationships with clients, peers, and members of the health care team
- Meet all requirements for application for licensure by the Ohio Board of Nursing
- Consistently demonstrate professional behavior as a member of a health care team, recognizing the importance of adhering to the practical nurse code of ethics

Courses Taught:

Program Essentials for Success, Nurse Aide Training Program, Healthcare Terminology / Introduction to Body Structure and Function, Healthcare Math / Dosage Calculation, Introduction to Nursing, Body Structure and Function, Fundamentals of Practical Nursing, Drug Therapy, Adult Nursing I and II, IV Therapy, Maternal Newborn, Growth and Development, Child and Adolescent, Nursing Ethics Issues and Trends, Capstone Content Review, Clinical Rotations



Precision Machining

Program Description:

The Precision Machining Technology program offers a broad training experience that prepares individuals for employment in the precision manufacturing industry.

Program Goals:

- Read and analyze engineering drawings
- Operate a variety of conventional machine tools
- Use precision measuring and inspection instruments
- Perform milling operations in an appropriate sequence
- Demonstrate the skills and critical thinking techniques to set up, operate, and tear down manual, automatic, or computer numeric controlled (CNC) machine tools
- Perform lathe operations in a sequence
- Demonstrate conventional CNC machining with enhancements in CNC programming
- Write a CNC program

Courses Taught:

Blueprint and Math 1, Machine Shop 1, Blueprint and Math 2, Machine Shop 2, Introduction to CNC Machining & Programming, CNC 1, Blueprint and Math 3, Machine Shop 3, CNC 2



Veterinary Aide

Program Description:

The Veterinary Aide program is designed to provide basic skills for animal care centers. Practical applications of this program include: veterinary hospital and office positions, animal control/humane work, pet store operations, and kennel/cattery management.

Program Goals:

- Identify the anatomy and physiology, function, and disorders of each animal body system
- Associate the concept of therapeutic nutrition and the effects on medical conditions
- Identify and perform routine veterinary office tests, define associated terminology, and describe the role of the Veterinary Aide as support to the Veterinarian in laboratory diagnosis and testing
- Define and perform Veterinary Nursing techniques including: convalescent pet care, administering medication, assist in applying bandages and splints, monitoring IV drips, feeding sick pets, using & caring for instruments and equipment
- Demonstrate proper handling and restraint of dogs and cats and identify normal and problem behaviors
- Define the basic principles of disease transmission and control and describe common infectious diseases of cats and dogs

Courses Taught:

Animal Anatomy and Physiology, Nutrition for Cats and Dogs, Pocket Pets Exotics Husbandry, Laboratory Skills for the Veterinary Aide, Clinical Pathology, Infection Control, Veterinary Nursing, Animal Behavior and Handling, Veterinary Receptionist and Office Procedures

Career Program Fees

PROGRAM	CLASS SCHEDULE	PROGRAM DATES	PROGRAM COST
Aviation Maintenance Tech	Mon - Fri: 1st yr. 8:05 am - 12:30 pm	08/17/17 - 06/28/19	\$13,685.00
	2nd yr. 8:45 am - 2:30 pm		
Carpentry	Mon - Thurs: 5:30 - 10:00 pm	09/05/17 - 09/18/18	\$11,780.00
Central Service Sterile Processing Technician	Mon - Thurs: 6:00 - 9:00 pm	10/16/17 - 06/01/18	\$7,845.00
Dental Assisting	Mon - Thurs: 4:00 - 9:00 pm	08/14/17 - 05/24/18	\$8,475.00
Electrician	Mon - Thurs: 5:30 - 10:00 pm	09/05/17 - 10/01/18	\$12,910.00
Eye Care/Ophthalmic Assistant	Mon - Thurs: 5:30 - 9:30 pm	09/25/17 - 09/20/18	\$7,880.00
Heating, Ventilation, Air Conditioning & Refrigeration Tech	Mon - Thurs:	09/05/17 - 09/18/18	
	5:30 - 10:00 pm	03/19/18 - 03/21/19	\$12,820.00
Heavy Equipment Operations	Mon - Thurs:	09/05/17 - 07/27/18	
	5:30 - 10:00 pm	03/19/18 - 02/08/19	\$15,095.00
Medical Assisting	Mon - Fri: 8:30 am - 3:00 pm	10/02/17 - 06/08/18	\$9,910.00
Nurse Aide	Mon - Fri: 8:00 am - 4:00 pm	Offered Monthly	\$600.00
Paramedic	M & W 1:00 - 5:00 pm or	08/21/17 - 08/09/18	\$9,470.00
	T & TH 6:00 - 10:00 pm		
Practical Nursing: 12 MONTH	Mon - Fri: 8:00 - 3:30 pm	05/08/17 - 06/01/18	\$16,135.00
Practical Nursing: 20 MONTH	Wed - Fri: 8:00 - 3:30 pm	07/17/17 - 02/22/19	\$16,135.00
Precision Machining	Mon - Thurs:	09/25/17 - 09/10/18	
	5:45 - 10:00 pm	03/27/17 - 03/01/18	\$11,245.00
Veterinary Aide		09/25/17 - 06/21/18	
	Mon - Thurs: 5:45 - 10:00 pm	01/08/18 - 12/13/18 04/02/18 - 03/28/19	\$5,885.00

(MVCTC Adult Education reserves the right to adjust dates & fees as needed)

Revised 07/28/17