CV TECH

2022-2023 Program Syllabi

Chickasha Campus
1401 W Michigan Avenue
Chickasha, Oklahoma 73018
405.224.7220

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Canadian Valley Technology Center

Our mission is to prepare people to succeed through
quality career and technical education programs and services.

Since 1970, we have been providing educational opportunities for high school students and adults. Our programs and services help you if you're ready to enter the workforce, if you're going to college, if you're an adult ready to make a career change or simply ready to expand your skills. CV Tech is ready to help you focus on your future.

CV Tech's student body is a diverse group of high school students from 14 sending schools and adults from the communities we serve. We have three campuses and offer training in 29 career fields.

Each year, hundreds of students choose to maximize their education by adding Canadian Valley's career-focused curriculum to their class schedules. Students are taught the fundamental concepts of their chosen field and learn to apply them in a professional lab/shop environment, all while learning to apply math, science, literacy, and employment readiness into their studies. This approach helps our students master highly technical procedures and gives them a head start on developing the work ethic employers demand from employees. As a result, our graduates are prepared to keep up with today's rapidly changing job market.

At CV Tech, instructors utilize instructional delivery that consists of individualized, standards-based learning through the use of an online learning management system and hands-on, skills-driven, project-based learning that includes work-based learning opportunities and capstone projects. Employability skills and academic skills instruction are incorporated with occupational skills education throughout the program.

El Reno	Cowan	Chickasha

CV Tech Information

Schedule
We offer two daytime class sessions:

AM 8:00 - 11:00 PM 12:10 - 3:00

Class sessions are approximately three hours with a ten minute break. Students will spend the entire time in their program unless they are taking a math class at CV Tech.

Transportation
Bus transportation is provided from each high school campus or students may choose to drive to campus.

Industry Certifications
The District will pay for up to four industry or trade-specific certification examinations and licenses related to the student's approved program of study, not to exceed $350.00 per student, per program. To receive this benefit, a student must be:
- taking their first attempt; does not count for retakes
- currently enrolled or recently completed (within the current year)
- in district student in good standing
- have the program instructor's recommendation to take the exam.

High School Credit
Courses that qualify for credit are marked with this symbol 🖳 on the program syllabus. They will also be marked with one of the following symbols to identify the type of credit earned.

🧪 = Science Credit   🖥 = Computer Science Credit   π = Math Credit

All 🖳 marked courses qualify for OHLAP credit. OCAS codes are listed on the program syllabus. Awarding of high school credit for courses shall be at the option of the local independent board of education.

Check ODCTE website for continuous updates.
https://www.okcareertech.org/educators/career-and-academic-connections/academics

College Credit
Community colleges and universities that offer technical college certificates may award college credit for courses taught at technology centers through Prior Learning Assessments (PLA's). See current Statewide PLA Technical Inventory at
https://www.okhighered.org/agreements/docs/PLA-matrix.pdf
For more information contact a CV Tech counselor. (see next page)

Contact Information

Chickasha Campus (405) 224-7220 1401 W Michigan Ave Chickasha, OK 73018	**Program Administrators**	
	Ronnie Bogle	(405) 222-7527
	Wendi Williams	(405) 222-7524
	Counselors	
	Traci McNeff	(405) 222-7553
	Special Needs Coordinator / Counselor	
	Denise Burns	(405) 222-7557
	Outreach and Recruitment Specialist	
	Breann Dowdle	(405) 222-7503

Program Counselor and Administrator

Please direct questions to the counselor and/or administrator that supports each program.

Program	Campus	Counselor	Administrator
Automotive Collision Technology	Chickasha	McNeff / Burns	Ronnie Bogle
Automotive Service Technology	Chickasha	McNeff / Burns	Wendi Williams
Business and Medical Administration	Chickasha	McNeff / Burns	Wendi Williams
Computer Aided Drafting & Design	Chickasha	McNeff / Burns	Wendi Williams
Computer Information Systems	Chickasha	McNeff / Burns	Ronnie Bogle
Digital Media Technology	Chickasha	McNeff / Burns	Ronnie Bogle
Early Care and Education	Chickasha	McNeff / Burns	Ronnie Bogle
Graphic Design	Chickasha	McNeff / Burns	Ronnie Bogle
Health Careers	Chickasha	McNeff / Burns	Ronnie Bogle
Heating, Ventilation, Air Conditioning & Refrigeration	Chickasha	McNeff / Burns	Wendi Williams
Math	Chickasha	McNeff / Burns	Wendi Williams
Practical Nursing (Adults)	Chickasha	McNeff / Burns	Laurie Jones
Pre-Engineering	Chickasha	McNeff / Burns	Wendi Williams
Precision Machining Technology	Chickasha	McNeff / Burns	Ronnie Bogle
Service Careers	Chickasha	McNeff / Burns	Wendi Williams
Surgical Technology	Chickasha	McNeff / Burns	Ronnie Bogle
Welding	Chickasha	McNeff / Burns	Wendi Williams

Automotive Collision Technology

The Automotive Collision Technology program at CV Tech is an I-CAR affiliate program. Students will learn auto detailing, nonstructural collision repair, refinishing, structural collision repair, shop management, and customer service.

Local Program

Combination Collision Repair Technician, OCAS 9904/9905

Courses	Hours	OCAS
Shop Safety / OSHA 10 Automotive Safety	15	
Introduction to Collision Repair	75	
Nonstructural: Metal Straightening, Body Fillers, Plastic Repair	155	
Nonstructural: Panel Repair / Replace Trim, Hardware, Glass	75	
Welding: MIG (GMAW), Resistance (STRSW), Aluminum Cutting; Gas, Plastic	155	
Refinish: Surface Preparation and Priming	100	
Auto Detailing: Detail, Wetsanding, Buffing, Cleaning	45	
Structural: Unibody/Frame Analysis and Repair, Computerized Measuring, Tram Gauge	75	
Structural: Repair/Replace Inner Structure Unibody	75	
Supplemental Restraint System	15	
Collision Damage Analysis: Computer Estimating	30	
Refinish: Application, Blending, Color Adjustment	80	
Mechanical Repair / Collision Related	40	
Workforce Staging	25	
TOTAL HOURS	**960**	

Occupations
Painter Helper
Body Technician Helper
Auto Detailer
Refinishing Technician
Collision Technician
Estimator / Appraiser
Service Writer
Industrial Refinishing
Parts Manager

Entry Level Salary Range
$10.00 - $18.00 per hour

Licensure/Certification
I-Car/PDP-EE Pro Level 1
I-CAR Platinum Refinishing
I-CAR Platinum Nonstructural

Student ASE:
Painting and Refinishing
Structural Analysis and
  Damage Repair
Non-structural Analysis and
  Damage Repair
Mechanical and Electrical

Resources
I-CAR Collision Repair PDP
  Online
Auto Collision Repair and
  Refinishing
Chief Measuring System
CCC Estimating Software

Suggested Entry Level Skills

9th grade reading level; Basic math skills; Algebra, Geometry

Clothing Requirement

Students must wear long pants and close-toe shoes. Must wear clothes that can get dirty; be prepared to get dusty.

CVTECH

Program Information Sheet

Automotive Service Technology
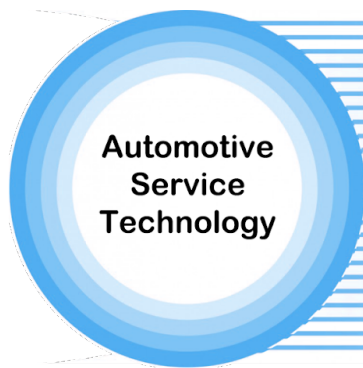
The Automotive Service Technology program at CV Tech is a NATEF certified program that focuses on diagnosing and repairing passenger cars and light trucks, including current computer controlled models. Students learn about the following systems: brakes, steering and suspension, electrical, heating and air-conditioning, automatic transmission, manual transmission and drivetrain, and engine repair and performance.

Local Program

Automotive Technician (NATEF Aligned), OCAS 9906/9907

Courses	Hours	OCAS
Fundamentals of Auto Service	45	
Automotive Brakes	60	
Automotive Heating and Air-Conditioning	45	
Automotive Electrical/Electronics	240	
Automotive Steering and Suspension	135	
Automotive Manual DriveTrain and Axle Introduction 1	15	
Automotive Automatic Transmission	80	
Automotive Engine Repair	105	
Automotive Engine Performance	175	
Workforce Staging	30	
TOTAL HOURS	**930**	

Occupations
Automotive Technician
Automotive Service Advisor
Maintenance/Light Repair Tech
Parts Counter Associate

Entry Level Salary Range
$9.00 - $25.00 per hour

Licensure/Certification
Student ASE:
Brakes
Suspension and Steering
Electrical and Electronic
   Systems
Heating and Air Conditioning
Maintenance and Light Repair
Engine Performance
Engine Repair
Manual DriveTrain and Axles
Automatic
   Transmission/Transaxle
Automobile Service Technology

Resources
CDX Online Fundamentals of
   Automotive Technology
AllData website
ProDemand website

Suggested Entry Level Skills
10th grade reading level; Basic math skills; Algebra; Geometry

Clothing Requirement
Work shirt and work pants; valuable clothing should not be worn, as it could be ruined by contact with dirt and grease. Closed-toe shoes are required; leather, high top, steel toe work shoes, or boots with oil resistant non-slip soles are preferred. Safety glasses are required (1st pair provided).

Business and Medical Administration
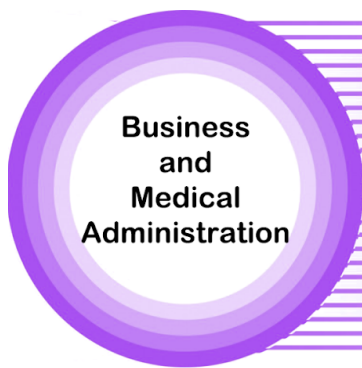
The Business and Medical Administration program at CV Tech provides students with technology and managerial skills needed for success in competitive business careers as well as valuable prerequisite skills for success in college business majors such as accounting, finance, marketing and management. Students choose an emphasis on either accounting, entrepreneurship and event planning, or medical office assistant. Every student begins with a focus on professional business communication, office procedures, and advanced Microsoft Office software programs including word processing, spreadsheet, database, and presentation software. Students then select their area of interest.

Local Program

Accounting Clerk / Administrative Assistant, OCAS 9202/9226
Option 1 Accounting Clerk
Option 2 Entrepreneurship and Event Planning
Option 3 Medical Office Assistant

Courses	Hours	OCAS
Fundamentals of Administrative Technologies	120	8103
Office Administration & Management	120	8105
Foundations of Business	120	
Accounting I *Option 1* Accounting Basics *Option 2 and 3*	120	
Accounting II *Option 1* Introduction to Entrepreneurship, Hospitality, & Tourism *Option 2* Foundations of Medical Office *Option 3*	120	
Payroll Accounting *Option 1* Business Development and Management *Option 2* Patient Billing *Option 3*	120	
Integrated Projects *Option 1* Digital Marketing *Option 2* Medical Terminology *Option 3*	60	
Computerized Accounting *Option 1* Event and Convention Planning Management *Option 2* Medical Insurance *Option 3*	120	8109
Employment Essentials Capstone	60	
TOTAL HOURS	**960**	

Occupations
Administrative Assistant
Receptionist
Financial Clerk
Accounts Payable/Receivable Clerk
Payroll Clerk
Medical Office Assistant
Event Planning Assistant
Entrepreneur

Entry Level Salary Range
$10.00 - $23.00 per hour

Licensure/Certification
Microsoft Office Specialist

Resources
Microsoft Office
GCFLearnFree.org
Foundations of Business
The Office: Procedures and Technology
Records Management
The Office Specialist
Customer Service
Accounting General Journal
QuickBooks Pro
Payroll Accounting
Administrative & Clinical Competencies
Insurance Handbook for the Medical Office
Exploring Electronic Health Records

Suggested Entry Level Skills
10th grade reading level; Basic math skills

CVTECH

Program Information Sheet
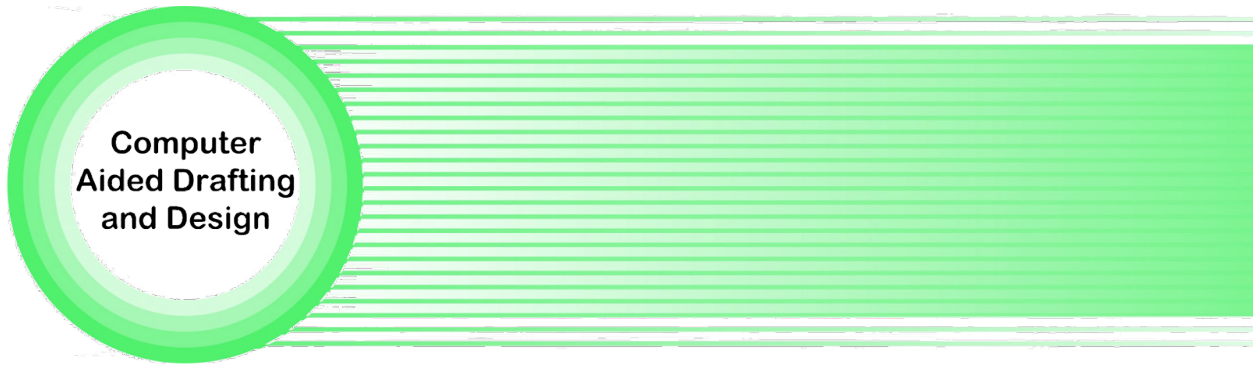
Computer Aided Drafting and Design

The CADD program at CV Tech emphasizes communication design through 3D modeling, texturing, animating, rigging, and game design. Students gain introductory skills in traditional design software (AutoCAD, Revit, Civil 3D, Solidworks) to prepare for skills and techniques of emerging technologies (advanced real-time rendering, interactive design and virtual reality using Twinmotion, Blender, and Unreal). Options are offered in civil, architectural, and mechanical design and drafting.
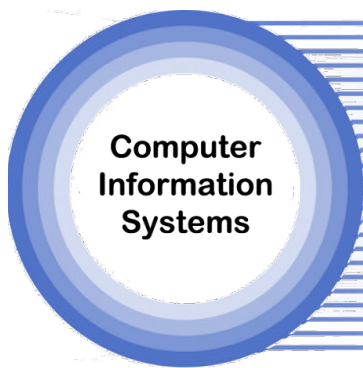
Local Program

CAD Drafter, OCAS 9054/9084

Courses	Hours	OCAS
Fundamentals of Computer Aided Drafting and Design	120	8905
Engineering Computer Aided Drafting and Design	120	8904
Principles of CAD Design	145	
Manufacturing Computer Aided Drafting and Design	120	
Advanced Presentation Graphics Animation	105	
2D CAD Mech / Arc	120	
CAD Civil Introduction	60	
CAD Piping Introduction	60	
Drawing & Document Management	45	
Material and Equipment Specifications	35	
Workforce Staging	30	
TOTAL HOURS	**960**	

Occupations
CAD Drafter Designer
2D Drafter Designer
3D Drafter Designer

Entry Level Salary Range
$15.00 - $26.00 per hour

Licensure/Certification
AutoDesk-AutoCAD
AutoDesk-Revit
AutoDesk-Civil 3D
Solidworks

Resources
Solid Professor

Suggested Entry Level Skills
9th grade reading level; Basic Math

Computer Information Systems

This local program prepares students to repair, service and troubleshoot personal computers and computer-related equipment and to install and configure operating systems and application software. Students also learn to install, configure and support an organization's local area network (LAN). Students in this program gain the technical skills required for the CompTIA ITF+, CompTIA A+, and the CompTIA Network+ industry certifications.

Local Program
Network PC Support Technician, OCAS 9542/9543

Courses	Hours	OCAS
Computer Repair and Troubleshooting I	240	8136
Computer Repair and Troubleshooting II	240	8137
Routing and Switching I	240	
Routing and Switching II	120	8125
Career Major Capstone	120	
TOTAL HOURS	**960**	

Occupations
Help Desk Support
Desktop Support Analyst

Entry Level Salary Range
$10.00 - $20.00 per hour

Licensure/Certification
All students:
TestOut PC Pro
CompTIA A+
CompTIA ITF+
CompTIA Network+

Optional:
CompTIA A+
CompTIA Network+
CompTIA Security+
CompTIA Linux+
Microsoft Certified
 Professional

Resources
LabSIM TestOut PC Pro
Total Seminars CompTIA
 A+ Video Lectures
Total Seminars CompTIA
 Network+ Video Lectures
CBT Nuggets Cisco CCNA
 200-301 Video Lectures
uCertify Cisco 200-301
 Simulator
Cisco Packet Tracer

Suggested Entry Level Skills
9th grade reading level; Basic math skills

CVTECH

Program Information Sheet
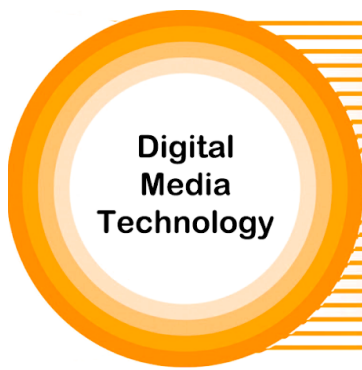
Digital Media Technology

The Digital Media Technology program at CV Tech prepares students for video production and digital communication. Students will create various media pieces using the iMac computer lab and a variety of industry-level equipment. All Students will focus on mastering Adobe products – Premiere Pro, After Effects, Photoshop, InDesign, and Illustrator – as well as online digital marketing through social media. Upon completion of the program, all students will have an opportunity to be certified in up to two Adobe programs.

Local Program
    Marketing Communications Associate, 9783/9784

Courses	Hours	OCAS
Fundamentals of Technology	120	8169
Advertising Strategies	120	
Business and Marketing Communications	60	
Customer Service	60	
Employment Essentials	60	
Marketing Fundamentals	120	
Desktop Publishing and Graphic Design	120	8149
Marketing Research	120	
Product and Service Sales	60	
Public Relations Marketing	60	
Capstone	60	
TOTAL HOURS	**960**	

Occupations
    Production Assistant
    Digital Media Specialist
    Photographer
    Videographer
    Social Media Management
    Marketing Assistant

Entry Level Salary Range
    $12.00 - $16.00 per hour

Licensure/Certification
Adobe Certified Associate:
    InDesign
    Photoshop
    Premiere Pro

    FAA Certification:
    Recreational Flyer
    Commercial Unmanned Aerial Systems (UAS)

    Students will create a professional portfolio or demo reel

Resources
    Gmetrix
    The Photographer's Toolkit
    ICEV
    Better Photo Basics

Suggested Entry Level Skills
    8th grade reading and math levels

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Program Information Sheet

Early Care and Education

The Early Care and Education program at CV Tech is designed to prepare students for employment in child care occupations. The National Accreditation Commission for Early Care and Education Programs (NAC) accredits the on-site Child Development Center, where students will experience rotations with children six weeks through four years of age. Students in this program will begin their portfolio to earn The Child Development Associate (CDA) Credential.

Local Program
Early Care Education, OCAS 9480/9489

Courses	Hours	OCAS
Planning a Safe, Healthy Learning Environment	120	
Advancing Children's Physical and Intellectual Development	120	
Supporting Children's Social and Emotional Development	120	
Building Productive Relationships with Families	120	
Managing an Effective Program	120	
Maintaining a Commitment to Professionalism	120	
Observing and Recording Children's Behavior	120	
Understanding Principles of Child Development and Learning	120	
TOTAL HOURS	**960**	

Occupations
Early Care & Education Master Teacher

Entry Level Salary Range
$8.00 - $18.00 per hour

Licensure/Certification
CECPD Certifications:
Entry Level Child Care Training
Sleep Safe
Early Learning Guidelines

American Heart Association CPR/First Aid

ODCTE Competency Tests:
Teacher Assistant
Master Teacher
Pathway to Your National Credential

After completing this program, students who complete the CDA process while working at a child development center may apply for their National Credential. Some students are able to apply for CDA credential after this program.

Resources
Working with Young Children
The Child Development Associate National Credentialing Program and CDA Competency Standards
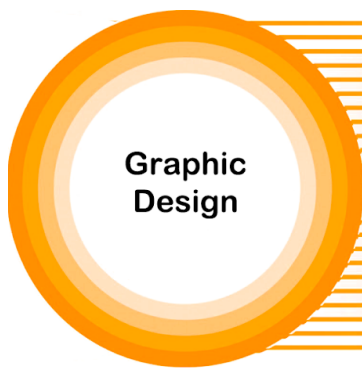Child Development

Suggested Entry Level Skills
9th grade reading level; Basic math skills

Clothing Requirement
Closed-toe shoes required in the Child Development Center kitchen. Clothing should be washable and fit to allow for movement, outdoor activities and sitting on the floor with children.

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Program Information Sheet

Graphic Design

The Graphic Design program prepares you to develop, design and produce a wide range of business marketing for customers. You will learn to create logos, advertisements, vinyl decals, promotional posters and product packaging as well as sublimation. Students will learn Adobe design software (InDesign, Illustrator, and Photoshop) and other support software. They will create and edit graphics and documents using design principles that include composition, color, layout, illustration, typography, and more. As the course progresses, you will produce a portfolio that exhibits your creativity, capabilities, and vision to prospective employers and colleges.

Local Program
Graphic Designer, OCAS 9133/9144

Courses	Hours	OCAS
Introduction to Graphic Design	60	
Desktop Publishing and Graphic Design	120	8149
Multimedia & Image Management Techniques	120	8150
Graphic Design Principles	90	
Graphic Design Production I	90	
Advanced Adobe Suite for Graphic Design	180	
Graphic Design Production II	120	
Employment Readiness	60	
Capstone	120	
TOTAL HOURS	**960**	

Occupations
Graphic Artist
Print Shop Associate
Production Assistant
Sublimation Technician

Entry Level Salary Range
$12.00 - $18.00 per hour

Licensure/Certification
*Adobe Certified Associate:*
InDesign
Illustrator
Photoshop

Students will create a professional portfolio

Resources
Advertising and Design
Creative Workshop
GO: A Kidd's Guide to Graphic Design
ACA Test Prep Online
The Print Handbook
Gmetrix

Suggested Entry Level Skills
10th grade reading level; Basic math skills (understanding the marks on a ruler for example)

CVTECH

Program Information Sheet
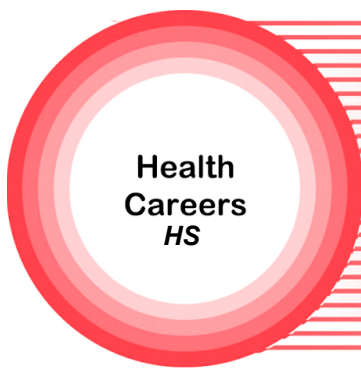
Health Careers
HS

The Health Careers program at CV Tech prepares students through training in core medical knowledge, anatomy, physiology, medical terminology, first aid/CPR, communication pertaining to the health sector, and nursing assistant skills. All first year students will complete Anatomy, Physiology, and MedTerm and begin certified nursing assistant (LTCA) training; second year students will complete LTCA training and learn EKG Technician and Phlebotomy. Those who decide not to pursue patient care may transfer to the Accounting and Business Education program to learn Medical Office skills so they may pursue working on the administrative side of a hospital or doctor's office.

Local Program • (High School Only Program)
Nursing Services - CNA, OCAS 9301/9331

Courses	Hours	OCAS
Anatomy	60	5333
Physiology	60	5220
Medical Terminology	60	
Healthcare Provider CPR and First Aid	9	
Long Term Care Aid *includes National Health Science Standards (Core) and a minimum of 16 clinical hours in a long term care facility or setting*	275	
Home Health Care Nursing Assistant	16	
EKG Technician	120	
Phlebotomy	120	
TOTAL HOURS	**720**	

Occupations
Certified Nursing Assistant
Advanced Unlicensed Assistant
Home Health Aide

Entry Level Salary Range
$13.00 - $16.00 per hour

Licensure/Certification
AHA BLS Provider, CPR, First Aid
Certified Nursing Assistant (LTCA)
Home Health Aide
NCCT ECG Technician NCET
NCCT Phlebotomy Technician
 NCPT

Resources
Dean Vaughn Medical Terminology
Body Structures and Functions
Mosby's for Long Term Care
 Nursing Assistant
Being a Homemaker Home Health
 Aide

Suggested Entry Level Skills
10th grade reading level; Basic math skills; Algebra

Clothing Requirement
Students must have one full set of scrubs (NAVY only); may wear scrub top and bottom or HOSA or CV Tech shirt instead of a scrub top; closed toe shoes (clean and professional); may wear a sweatshirt or jacket.

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Heating, Ventilation, Air Conditioning, & Refrigeration

The Heating, Ventilation, Air Conditioning, and Refrigeration program at CV Tech is an introduction into Residential and Light Commercial program. Students learn the fundamentals of safety, mechanics, refrigeration, electricity for HVACR, residential and light commercial air conditioning, domestic and commercial refrigeration, and sheet metal. Students will take the OSHA-10 Certification and the State competency exams.

Local Program

Residential HVAC Technician, OCAS 9059/9080

Courses	Hours
Air Conditioning Systems	100
Air Handling	45
Electricity for HVAC/R	60
Heat Pumps	30
Heating Systems	90
HVAC/R Codes, Regulations, & Standards	30
HVAC/R Controls	45
HVAC/R Preventive Maintenance	15
HVAC/R Solid State Electronics	30
HVAC/R System Servicing Installation & Start-Up	120
HVAC/R System Servicing & Troubleshooting - Residential	90
Indoor Air Quality	15
Introduction to HVACR: Safety, Tools, & Equipment	30
Load Calculations	15
Piping & Piping Practices	45
Principles of Thermodynamics & Heat Transfer	60
Professional Service	15
Refrigerant Recovery	15
Refrigerant Retrofits	15
Refrigerant System Components	90
Refrigerants & Lubricants	15
Workforce Staging	30
TOTAL HOURS	**1000**

Occupations

Apprentice HVAC Technician
Apprentice HVAC Installer
Sheet Metal Fabrication Apprenticeship

Entry Level Salary Range

$12.00 - $18.00 per hour
After obtaining a Journeyman's License, employees may earn $20.00/hour or more.

Licensure/Certification

EPA Certification
OSHA 10
FlashShield Certification
Two years of experience toward the 3-years required for a Journeyman License
Advanced placement with Sheet Metal Union

Resources

Modern Refrigeration and Air Conditioning 21st Ed.
International Mechanical Code
International Fuel Gas Code

Suggested Entry Level Skills

10th grade reading level; Basic math skills; Algebra; Geometry

Clothing Requirement

Closed-toe shoes and proper PPE are required and long pants are required in the shop.

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Program Information Sheet
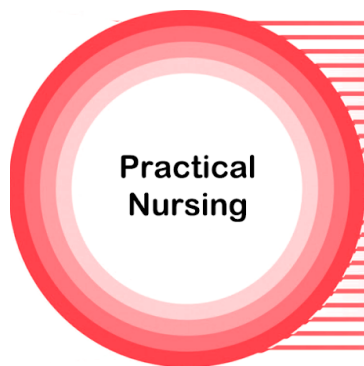
Practical Nursing

The Practical Nursing program at CV Tech prepares adult students to become a Licensed Practical Nurse. Graduates are eligible to take the NCLEX examination for Practical Nursing licensure after successful completion of the Practical Nursing program.

Local Program
Practical Nursing, OCAS 9323

| Courses	Hours
Medical Terminology	45
Anatomy	60
Physiology	60
Nursing Concepts	40
Fundamentals of Nursing I	165
Fundamentals of Nursing II	70
Pharmacology and Intravenous Therapy Skills	60
Clinical II - Medical Surgical Nursing	193
Medical Surgical Nursing I	85
Pediatric Nursing	65
Clinical III - Medical Surgical Nursing	276
Maternal/Newborn Nursing	65
Mental Health Nursing	40
Medical Surgical Nursing II	95
Clinical IV - Material/Newborn, Pediatric, and Mental Health	221
TOTAL HOURS	**1540**

Occupations
Licensed Practical Nurse

Entry Level Salary Range
$12.00 - $27.00 per hour

Licensure/Certification
Students able to apply for NCLEX examination for Practical Nursing licensure

Resources
Medical Terminology 350 (2nd edition)
Human Body in Health & Illness (7th edition)
Fundamentals of Nursing Care
Nursing Leadership
Calculate with Confidence
All in One Care Planning
Med-Surg Nursing Concepts and Practice
CPR – BLS for Healthcare Provider
CPR Training Mouthpiece
Introduction to Maternity and Pediatrics
Mental Health Nursing
Understanding Pharmacology

Suggested Entry Level Skills
Minimum scores of 250 in reading and 250 in arithmetic on the Accuplacer exam.

Clothing Requirement
Students are required to wear scrubs of any color to class every day. Scrub tops, tshirts, or sweatshirts can be worn with scrub pants. School uniform scrubs (specific color with specific patches) are only required during clinicals and are purchased from the CV Tech bookstore.

CVTECH

Program Information Sheet
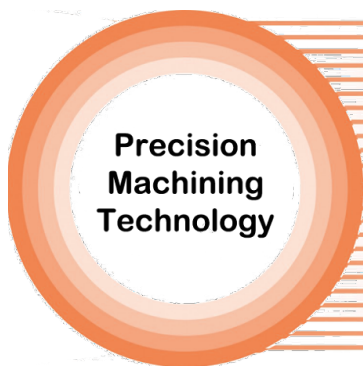
Precision Machining Technology

The Manufacturing and Machining program at CV Tech prepares students for a career in the machining field. Students learn blueprint reading, math, measuring tools, and setup and operation of manual machine tools such as lathes, grinding machines, mills during their first year and CNC machining in the second year where they will set up, operate, and write programs for CNC mills and lathes.

Local Program
Precision Machinist, OCAS 9679/9680

Courses	Hours	OCAS
Orientation to Machining	30	
Print Reading for Machining	45	
Fundamentals of Manufacturing	45	
Machine Tool Theory	45	
Metal Preparation for Processing	45	
Precision Measurement	45	
Precision Grinding	30	
Engine Lathe Operations	135	
Drill Press Operations	75	
Milling Operations	135	
Computer Numerical Control Operations	60	
Basic CNC Mill Operations	60	
CNC Mill Programming	60	
Basic CNC Lathe Operations	60	
CNC Lathe Programming	60	
Workforce Staging	30	
TOTAL HOURS	**960**	

Occupations
Machinist
CNC Operator

Entry Level Salary Range
$13.00 - $25.00 per hour

Licensure/Certification
ODCTE Competency Tests:
Drill Press Operator
Lathe Operator
CNC Machining Center Operator

Resources
Immerse2Learn
Precision Machining Technology
Machining Center Programming and Operation
Turning Center Programming and Operation
HASS operator and training manual
Cam Instructor

Suggested Entry Level Skills
11th grade reading level; Basics of Algebra; Geometry; Trigonometry

Clothing Requirement
Long pants (jeans or work pants), short-sleeved shirts, closed-toe shoes with socks, and safety glasses are required.

CVTECH

Program Information Sheet
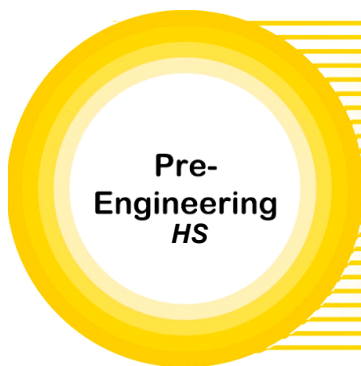
Pre-Engineering HS

The Pre-Engineering program at CV Tech is a college preparatory program for sophomores, juniors, and seniors that combines advanced math and science with hands-on, real-world application of engineering principles. Design a city, program a robot, and do other projects while learning engineering concepts. Students will be enrolled in the courses below based on courses completed at their high school prior to entering the Pre-Engineering program. *Local Program: Pre-Engineering Academy, OCAS 9862/9871*

Courses for Sophomore Entry		
Sophomore (First year)	**Junior (Second Year)**	**Senior (Third Year)**
Accelerated Algebra II π (OCAS 4412)	College Algebra* π (OCAS 4413)	AP Calculus AB π (OCAS 4615)
Accelerated Physics I (OCAS 5211)	Trigonometry* π (OCAS 4750)	AP Physics C - Mechanics (OCAS 5216)
Intro to Engineering Design (OCAS 8709) **	Aerospace Engineering (OCAS 8715)	Digital Electronics π (OCAS 8711)
	Principles of Engineering (OCAS 8710)	Engineering Design and Development (OCAS 8716)

Courses for Junior Entry (Calculus Track – Must have already taken Algebra II)	
Junior (First Year)	**Senior (Second Year)**
College Algebra* π (OCAS 4413)	AP Calculus AB π (OCAS 4615)
Trigonometry* π (OCAS 4750)	AP Physics C - Mechanics (OCAS 5216)
Intro to Engineering and Design (OCAS 8709) **	Aerospace Engineering (OCAS 8715)
Principles of Engineering (OCAS 8710)	Engineering Design and Development (OCAS 8716)

Courses for Junior Entry (Non-Calculus Track)	
Junior (First Year)	**Senior (Second Year)**
Algebra 2 π (OCAS 4412)	College Algebra* π (OCAS 4413)
Intro to Engineering and Design (OCAS 8709) **	Trigonometry* π (OCAS 4750)
Principles of Engineering (OCAS 8710)	Aerospace Engineering (OCAS 8715) or Digital Electronics π (OCAS 8711)
	Engineering Design and Development (OCAS 8716)

Suggested Entry Level Skills / Academic Criteria

A student who meets pre-ACT/SAT college readiness benchmarks in STEM or math and science and has a grade B or higher in high school math and science courses may be accepted.

CVTECH

Program Information Sheet

Service Careers

The Service Careers Building and Grounds Maintenance program at CV Tech develops skills in horticulture, custodial skills, landscaping, and basic auto detailing. Students gain hands-on experience as they work in the greenhouse, create and maintain the service careers garden, and practice with landscaping and custodial equipment such as the zero turn mower and floor buffer. There is an emphasis in this program on the development of employability skills, positive attitudes, and work ethic.

Local Program
Building and Grounds Maintenance Technician, OCAS 9071/9076

Courses	Hours	Courses	Hours
Safety 1	15	Introduction to Electrical Safety and Electricity	15
Construction Math	15	Construction Core	120
Landscaping Design Process	60	Floor Care Equipment	30
Landscaping Turf Management	120	Installing Fixtures, Valves, Faucets, & Water Heaters	45
Landscape Grounds Keeping	120	Introduction to Carpentry	30
Service Careers Engine Operations	15	Introduction to Cleaning Chemicals	15
Service Careers Engine Systems	75	Introduction to Plumbing	30
Working in the Green Environment	15	Introduction to Rest Room Maintenance	15
Principles of Horticulture	30	Introduction to Welding in Construction	30
Facilities Grounds Keeper	30	Service Careers Life Skills	30
Introduction to Drywall/Drywall Basics	15	Workforce Staging	30
		TOTAL HOUR	**900**

Occupations
Greenhouse Worker
Customer Service Representative
Landscape Helper
Custodian
Auto Detailer

Entry Level Salary Range
$8.00 - $18.00 per hour

Licensure/Certification
N/A

Resources
N/A

Suggested Entry Level Skills
Basic reading and math skills but most important is a willingness to learn, work, and be employable upon completion of this program.

Clothing Requirement
Closed-toe shoes are required for all activities. Long pants are required for custodial and landscape labs. Students should wear old clothes or may keep a set of work clothes in their lockers.

CVTECH

Program Information Sheet

Surgical Technology
Adult
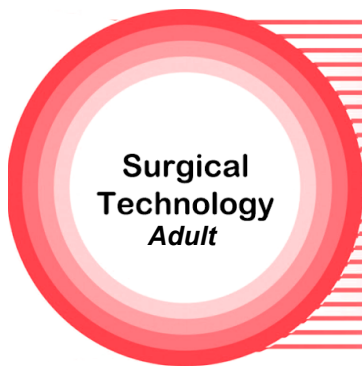
The Surgical Technology program at CV Tech prepares students to provide quality patient care before, during and after surgery as a critical part of the surgical team. Students learn to prepare operating rooms for surgery; sterilize and supply equipment; prepare patients for surgery, assist surgeons and nurses during surgery by passing instruments and other sterile supplies. Students will experience challenging coursework and instruction in a variety of surgical procedures and clinical settings.

Local Program • (Adult Only Program)
Surgical Technologist (Accredited Program), OCAS 9343

Courses	Hours	OCAS
Surgical Technology Orientation	15	
Core Medical Terminology	45	
Anatomy	160	
Physiology	80	
Introduction to Surgical Technology	60	
Microbiology and Wound Healing	48	
Essentials of Surgical Asepsis	60	
Surgical Pharmacology	60	
Disaster and Emergency Preparedness	15	
Surgical Patient Care	60	
Surgical Case Management	90	
Surgical Procedures I	90	
Surgical Procedures II	75	
Surgical Tech Practicum I	78	
Surgical Tech Practicum II	210	
Surgical Tech Practicum III	210	
TOTAL HOURS	**1356**	

Occupations
Surgical Technologist

Entry Level Salary Range
$18.00 - $22.00 per hour

Licensure/Certification
CST Nationally certified
Surgical Technologist

Resources
Medical Terminology: A short course
Understanding Anatomy & Physiology Text & Workbook

Suggested Entry Level Skills
9th grade reading level; Must score 250 in reading and 238 in arithmetic on Accuplacer to apply.

Clothing Requirement
Follow Canadian Valley Technology Center dress code policy for classroom, lab and clinical area.
Clean, neat scrubs, CVtech scrub tops are required for clinical rotation.

CVTECH

Program Information Sheet
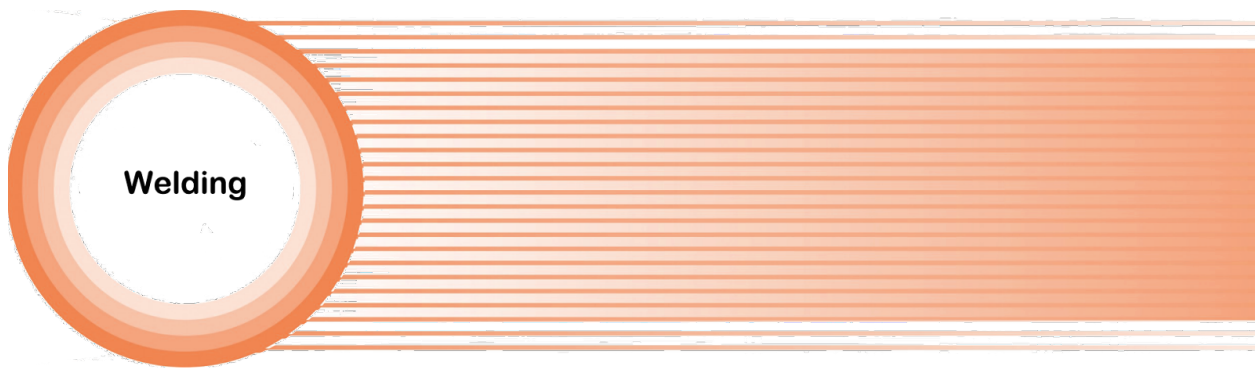
Welding

The Welding program at CV Tech prepares students for a career in the welding field. Students will learn about Shielded Metal Arc Welding (Stick), Gas Metal Arc Welding (MIG), Flux Cored Arc Welding (FCAW), and Gas Tungsten Arc Welding (TIG). Students will also learn about oxy-fuel cutting and weld shop blueprint reading.

Local Program

Pipe/Structural Welder/Fitter, OCAS 9707/9708

Courses	Hours	OCAS
Fundamentals of Welding	30	
Cutting Processes	85	
SMAW Beads and Fillet Welds	155	
Welding Joint Fit Up and Adjustments	15	
SMAW V Groove and Pipe Welds	180	
SMAW Stainless Steel Grove and Pipe Welds	75	
SMAW Groove Welds with Backing	30	
SMAW/FCAW Processes	105	
GTAW Plate and Pipe	120	
Weld Quality	15	
Welding Blueprints	30	
Metal Prep and Characteristics	60	
Employee Readiness	15	
GTAW Aluminum Plate	45	
TOTAL HOURS	**960**	

Occupations
Welder
Fabricator
Fitter
Inspector
Retail Sales

Entry Level Salary Range
$12.00 - $30.00 per hour

Licensure/Certification
Certified Welder

Resources
Welding Technology Fundamentals
Hobart Institute of Welding Technology Step-by-Step Books

Suggested Entry Level Skills
9th grade reading level; Basic math skills

Clothing Requirement
Steel-toe high-top boots, welding shirt or jacket, safety glasses, welding cap and welding gloves.

CVTECH

Appendix

CAREERTECH ACADEMIC CREDITS/TRANSCRIPTING – Math & Science Courses

On March 26, 2015, the Oklahoma State Board of Education approved certain math and science courses taught at technology centers and select high schools to count for academic credit on high school transcripts. On June 8, 2015, the Oklahoma State Regents for Higher Education approved the PLTW Pre-Engineering and PLTW Biomedical courses to count for academic credit on the College Prep/Work Ready curriculum and to count for OKPromise. CTE Biotechnology courses will count as a science course on the CORE curriculum and will count as electives on the CollegePrep/WorkReady curriculum. Additional courses were approved in December 2016.

In order for students to receive credit for these courses, it is imperative that schools follow these guidelines:

1)   Technology Centers <u>must submit</u> these courses to their partner schools' boards of education <u>for approval to count these courses as academic credit for graduation purposes</u>.

2)   The following chart shows which courses count for math or science credit and how the instructor of that course must be certified. If the instructor is not certified in the listed area, then the course will count as an <u>elective</u>.

3)   NCAA – High schools will need to submit to NCAA course syllabi's for the courses approved by the local BOEs that meet the requirements for math or science credit. Technology Centers will need to work with their partner schools to supply the information needed by NCAA.

4)   It is **<u>very important</u>** that the technology centers send their partner schools the correct OCAS code when listing courses receiving academic credit. (Just as technology centers have been doing for Human Anatomy/Physiology in Health and for courses already on the OKPromise list of approved courses.) It is also **<u>very important</u>** that high schools use these same codes when adding the courses to the students' transcripts. The correct OCAS codes for the science and math courses are listed in the chart below.

5)   Additional computer education courses approved for OKPromise and the CollegePrep/WorkReady curriculum are listed under **CTE Academics and Transcripting** located here: https://www.okcareertech.org/educators/career-and-academic-connections/academics

6)   Here is the link to the list of courses on the SDE's website: http://www.ok.gov/sde/accreditation-standards-division scroll down to subject codes.

World-of-Work Map and U.S. Department of Education Career Clusters

Finance
• Business & Medical Administration
Business, Management, & Administration
• Business & Medical Administration

Transportation, Distribution & Logistics
• Automotive Collision Technology
• Automotive Service Technology

Transportation, Distribution & Logistics
• Automotive Collision Technology
• Automotive Service Technology
Information Technology
• Computer Aided Drafting & Design
• Computer Information Systems

• NONE

Business, Management, & Administration
• Business & Medical Administration
Human Services
• Service Careers-Bldg. & Grnd. Main.

Human Services
• Service Careers-Bldg. & Grnd. Main.

Human Services
• Service Careers-Bldg. & Grnd. Main.

Manufacturing
• Precision Machining Technology
• Welding
Architecture & Construction
• Computer Aided Drafting & Design
• Heating, Ventilation, AC & Refrigeration
• Pre-Engineering
Transportation, Distribution & Logistics
• Automotive Collision Technology
• Automotive Service Technology

Health Science
• Health Careers
Education & Training
• Early Care & Education
Human Services
• Service Careers-Bldg. & Grnd. Main.

Science, Technology, Engineering & Mathematics
• Pre-Engineering
Architecture & Construction
• Computer Aided Drafting & Design
• Heating, Ventilation, AC & Refrigeration
• Pre-Engineering
Manufacturing
• Precision Machining Technology
• Welding

Arts, A/V Technology, & Communications
• Digital Media Technology
• Graphic Design

Health Science
• Health Careers
Arts, A/V Technology, & Communications
• Digital Media Technology
Human Services
• Service Careers-Bldg. & Grnd. Main.

Health Science
• Health Careers

Inner map labels

Administration & Sales — E
• Business, Mngmnt, & Adm.
• Marketing, Sales, & Service
• Human Services
• Hospitality & Tourism
• Government & Public Administration

Business Operations — C
• Finance
• Business, Management, & Administration
• Law, Public Safety, & Security

• Law, Public Safety, & Security
• Government & Public Administration

Technical — R
• Transportation, Distribution, & Logistics
• Agriculture, Food, & Natural Resources
• Information Technology

• Transportation, Distribution, & Logistics

Social Service — S
• Hospitality & Tourism
• Human Services
• Health Science
• Education & Training
• Human Services
• Law, Public Safety, & Security

Science & Technology — I
• Science, Technology, Engineering, & Mathematics
• Architecture & Construction
• Agriculture, Food, & Natural Resources
• Manufacturing

• Manufacturing
• Architecture & Construction
• Transportation, Distribution, & Logistics
• Hospitality & Tourism

Arts — A
• Arts, A/V Technology, & Communications

• Health Science
• Arts, A/V Technology, & Communications
• Human Services

• Health Science

Central wheel

DATA — PEOPLE — THINGS — IDEAS

2 C. Management
   B. Marketing & Sales
   A. Employment-Related Services
1 Z. Personal Services
   Y. Community Services
12 X. Education
   W. Health Care
11 V. Applied Arts (Written & Spoken)
   U. Creative & Performing Arts
10 S. Social Science
   T. Applied Arts (Visual)
9 R. Medical Diagnosis & Treatment
   Q. Medical Technologies
8 P. Natural Sciences & Technologies
   O. Engineering & Technologies
7 M. Manufacturing & Processing
   N. Mechanical & Electrical Specialties
   L. Crafts & Related
   K. Construction & Maintenance
6 J. Computer/Info Specialties
   I. Ag/Forestry & Related
   H. Transport Operation & Related
5 G. Distribution and Dispatching
4 F. Financial Transactions
   E. Communication & Records
3 D. Regulation & Protection

Oklahoma based the above model on the ACT World-of-Work Map in order to crosswalk the 6 ACT Career Clusters to the 16 U.S. Department of Education Clusters. This version does not imply endorsement by ACT or the U.S. Department of Education.

Law	Year	Description of Qualifiers	How Counted	Process
HB 3218	2016 (Original SB 497 in 2006)	Business and industry recognized endorsements **attained** by students: 1) Business and industry recognized endorsements are listed on the approved list here*. 2) Approved business and industry recognized endorsements follow A-F guidelines. Use the ones that appear in the A-F column with "Yes."	Business and industry recognized endorsements **attained** by students shall be **transcripted** on the student's high school transcript.	Technology centers send the name of the business and industry recognized endorsement and the name of students **earning** that endorsement to the high school counselor/registrar. At the high school, CTE teachers inform counselor/registrar the name of the business and industry recognized endorsement and the name of students **earning** that endorsement. Counselor/registrar adds name of endorsement to students' transcript in "notes" or "testing" section.
HB 3218	2016	**Postsecondary Opportunities:** *Students enrolling and successfully completing technology center industry certification programs* earn points that count towards the A-F report card of the local high school. 1) Industry certification programs must lead to specific certifications on the approved list here*. 2) Use certifications that appear in the A-F column with "YES."	Students may earn any number of points addressed in "Postsecondary Opportunities." Only 1 point per student can count on the A-F report card of the high school, however. Schools should submit all students qualifying for points. SDE will determine duplicative points.	**Technology centers** will report enrollment, participation and grades to ODCTE for all students in qualifying industry certification programs. ODCTE compiles this data and reports it to SDE. **High schools** will use approved CTE OCAS subject codes for reporting in the WAVE to ensure credit in the report. SDE guidelines can be found at http://sde.ok.gov/sde/accountability-assessments (includes approved CTE courses). Select **"Postsecondary Opportunities Guide."**

Law	Year	Description of Qualifiers	How Counted	Process
SB 1370	2018	**CORE students only:** Successful completion of 1 year of a full time, 3-hour CareerTech program leading to an industry-valued credential/ certificate *(industry-endorsed or industry-aligned)* or college credit. 1) Industry certification programs must lead to specific certifications on the approved list here*. 2) Use certifications that appear in the Endorsed or Aligned column with "Yes."	Can fulfill high school graduation requirements **for CORE students only** by counting as 1 of the 2 math credits that are at or above the level of Algebra I.	Technology center sends student grades to the high school. It is a local decision as to how the high school records it on the transcript. Following local board of education approval, counselor/registrar adds to students' transcripts. Technology Centers should use current CTE Subject Codes for reporting program completion to the high schools. The OSDE will provide guidance to school districts for transcripting, including suggestions for tracking the completion of math requirements. A statewide "Core Curriculum Enrollment" form for the core curriculum will be available on the OSDE Accreditation Division's website.

*Approved Assessment List – Updated: https://www.okcareertech.org/educators/assessments-and-testing/testing/testing.

Other academic resources including **Oklahoma CTE Guidelines for Academics** at
https://oklahoma.gov/careertech/educators/counseling-and-career-development.html

If you have questions or need more information, please contact Shawna Nord, Counseling and Career Development Manager, 405.743.5524 shawna.nord@careertech.ok.gov, or Julie Childers, Academic Coordinator, 405.743.5110, julie.childers@careertech.ok.gov.

Additional Guidance for SB 1370 – CareerTech Program Meeting Math Requirement

Senate Bill 1370 allows for the acceptance and completion of one (1) year of a full-time, three-hour career and technology program leading to an industry credential/certificate (endorsed or aligned) or college credit to count for a third math to meet graduation requirements for students on the CORE curriculum.

1) The CareerTech programs that will count for the CORE curriculum's third required math have to be leading to a certification that is industry-endorsed or industry-aligned.

2) SB 1370 also requires that a parent or legal guardian of the student meet with a designee of the local school prior to enrollment in the CORE curriculum. This meeting is critical in assuring parents and students are fully informed of their options.

3) The CORE curriculum counts for high school graduation only. It does not meet college entrance requirements or OKPromise requirements. Students on the CORE curriculum who want to attend college will have to meet additional requirements.

4) Tech Centers SHALL NOT discourage students from taking Algebra II or Geometry as their third required math or discontinue teaching pull-out math courses. (We do not want to make it more difficult for our students should they choose to continue to higher education, as 52% of our students do.)

5) This law should be the exception for students rather than the rule. It is an opportunity for students to meet the math requirement if scheduling or other issues prevent them from taking a third math.

6) Students can only use this option one time. CareerTech programs cannot count for CORE Math and a computer credit in the same year.

7) When the tech centers request their yearly approval of CareerTech academic courses from the local school boards, they will want to add information to specifically address this law.

8) **It is the local board decision as to how to transcript this credit.**

9) Here is the suggested transcript statement from the SDE:

SB 1370 – Transcription Guidance for Counselors
According to 70 O.S. § 11-103.6(D)(2)(g), as amended by Senate Bill 1370 (2018), an approved CareerTech (CTE) course may be used to satisfy one unit of mathematics credit for students on the Core Curriculum pathway. For ease of reading and understanding the transcript, a footnote may be added. Sample language for the footnote is provided below:

> *Pursuant to 70 O.S.§ 11-103.6(D)(2)(g), students on the Core Curriculum Pathway may satisfy one mathematics credit with either Computer Science or acceptance and successful completion of one (1) year of a full-time, three-hour career and technology program leading to an industry credential/certificate or college credit.*

Contact **Shawna Nord**, Academic Coordinator, shawna.nord@careertech.ok.gov , 405-743-5524
Updated May, 2019

CVTECH

Adult Enrollment Steps

Updated 7/11/22

Graduating Seniors should complete the Adult Enrollment process by February 1st to be considered for priority enrollment in August.

Testing Waiver(s): **Test scores are valid for <u>5 years</u> from the test date.**
- **ACT: Composite of 19 or higher**
- **SAT: Composite of 980 new SAT/1330 old SAT or higher**
- **ASVAB: 65 or higher**
- **Prior Assessment**
  - **Accuplacer Next Gen scores: 235 in Reading; 238 in Arithmetic**
  - **Accuplacer Classic: 53 in Reading; 41 in Arithmetic**
  - **WorkKeys: 3 in all areas**
- **Pass at least 12 hours of level 1 college courses or Associate Degree (within last 5 years). Students must be in good standing with the previous school(s).**
- **Bachelor/Master's Degree (can be older than 5 years, no time restriction)**

If qualifying for the waiver, all qualifying documents must be submitted to the appropriate program counselor.
- **You will be enrolled or placed on a waitlist.**

If you do not meet any of these criteria, schedule the Accuplacer Assessment
- **(405)222-7521 to schedule assessment**
  - **1st test is free; Retest or no show cost a small fee.**
    - **Cut scores: Reading 235 (250 LPN; 250 Surge Tech; 245 Aviation)**
      Arithmetic 238 (250 LPN; 238 Surge Tech; 245 Aviation-QRAS)

If taking Accuplacer, upon completion of the assessment, you'll meet with the appropriate program counselor.
- **You will be offered remediation, enrolled, or placed on a waitlist.**

If accommodations are needed: **Call: (405) 222-7557 prior to scheduling assessment**

Complete FAFSA application online, if applicable: **studentaid.gov (School Code: 009965)**

Determine if you qualify for the Next Step Scholarship:
- **Are you under the age of 24?**
- **Do you have a high school diploma or GED?**
- **Do you live in one of our sending school districts?**