



## Ongoing & Upcoming Course Schedule

## August 2025

#### CORE CURRICULUM

Build Your Future in Construction \* Basic Safety \* Introduction to Construction Math \* Introduction to Hand Tools \* Introduction to Power Tools \* Introduction to Construction Drawings \* Basic Rigging \* Basic Communication Skills \* Basic Employability Skills \* Introduction to Materials Handling

25-026	Mondays & Wednesdays	19May25 – 06Oct25	6:00 pm – 8:30 pm	Tiyan Training Facility room A204
25-033	Saturdays	24May25 - 27Sep25	8:00 am - 1:00 pm	Tiyan Training Facility room A103
25-036	Mondays & Wednesdays	04Aug25 – 17Dec25	6:00 pm – 8:30 pm	Tiyan Training Facility room A103
25-044	Tuesday & Thursdays	24Jul25 - 09Dec25	6:00 pm – 8:30 pm	Tiyan Training Facility room A103

#### **EROSION AND SEDIMENT CONTROL**

25-045	Friday & Saturday	08Aug25 – 09Aug25	8:00 am - 5:00 pm	Tiyan Training Facility room A205
25-046	Friday & Saturday	12Sep25 – 13Sep25	8:00 am - 5:00 pm	Tiyan Training Facility room A205
25-051	Friday & Saturday	10Oct25 - 11Oct25	8:00 am - 5:00 pm	Tiyan Training Facility room A205

#### MOBILE CRANE OPERATIONS

Orientation to the Trade \* Basic Principles of Cranes \* Rigging Practices \* Crane Communications \* Crane Safety & Emergency Procedures \* Operating a Crane

25-021	Tuesday & Thursdays	03Jun25 – 23Oct25	6:00 pm – 8:30 pm	Tiyan Training Facility room A101
25-060	Tuesday & Thursdays	04Nov25 – 09Apr26	6:00 pm – 8:30 pm	Tiyan Training Facility room A101

## **GCA Trades Academy – An NCCER Training Unit**



The GCA Trades Academy, Inc. is committed to the principle of equal opportunity in education and employment. The GCA Trades Academy does not discriminate against individuals on the basis of race, color, sex, sexual orientation, gender identity, religion, disability, age, veteran status, ancestry, or national or ethnic origin in the administration of its educational policies, admissions policies, employment policies, scholarship and loan programs, and other programs and activities, except where sex or age is a bona fide occupational qualification. Discrimination based on disability in educational programs and activities and employment with the GCA Trades Academy is prohibited.

The GCA Trades Academy expects all of its students and employees to join together to ensure a climate of diversity where everyone values individual and group differences, respects the perspectives of others and communicates openly to attain the best education.

Class dates and course availability are subject to change. Please contact the GCA Trades Academy offices for latest schedule.





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## **WELDING (LEVEL 1)**

Welding Safety \* Oxyfuel Cutting \* Plasma Arc Cutting (PAC) \* Air Carbon Arc Cutting & Gouging \* Base Metal Preparation \* Weld Quality \* SMAW – Equipment & Setup \* SMAW Electrodes \* SMAW – Beads & Fillet Welds \* Joint Fit-up & Alignment \* SMAW – Groove Welds with Backing \* Open Root Groove Welds-Plate

**24-087** Saturdays 11Jan25 – 07Feb26 1:00 pm – 6:00 pm Tiyan Training Facility room A101

## **WELDING (LEVEL 2)**

Welding Symbols \* Reading Welding Detail Drawings \* Physical Characteristics & Mechanics Properties of Metals \* Preheating & Postheating of Metals \* GMAW & FCAW – Equipment & Filler Metals \* GMAW – Plate \* FCAW-Plate \* GTAW – Equipment & Filler Materials \* GTAW – Plate

**24-079** Saturdays 14Dec24 – 25Oct25 8:00 am – 12:00 noon Tiyan Training Facility room A101

## **CARPENTRY (LEVEL 1)**

Orientation to Carpentry \* Building Materials & Fasteners \* Construction Plans & Documents \* Principles of Site & Building Layout \* Floor Systems \* Wall Systems \* Roof Framing \* Basic Stair Layout \* Building Envelope Systems

**24-082** Mondays & Wednesdays 26Apr25 – 01Oct25 6:00 pm – 8:30 pm Tiyan Training Facility room B102

## **CARPENTRY (LEVEL 3)**

Properties of Concrete \* Rigging Equipment \* Rigging Practices \* Trenching & Excavating \* Reinforcing Concrete \* Foundations & Slab-on-grade \* Vertical Formwork \* Horizontal Formwork \* Handling & Placing Concrete \* Tilt-up Wall Panel3

**25-035** Tuesday & Thursdays 12Aug25 – 02Apr26 6:00 pm – 8:30 pm Tiyan Training Facility room A203





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### **SAFETY TECHNOLOGY**

Introduction to Safety Technology \* Positive Safety Communication \* Hazard Recognition, Environmental Awareness, & Occupational Health \* Job Safety Analysis & Pre-task Planning \* Safety Data Tracking & Trending \* Site Safety Plans \* Safety Orientation & Safety Meetings \* Permits & Policies \* Incident Investigations, Policies & Analysis \* OSHA Inspections & Recordkeeping

25-043 Mon-Wed-Fridays

28Jul25 - 05Sep25

6:00 pm - 8:30 pm

Tiyan Training Facility room A202

## **HEAVY EQUIPMENT OPERATOR (LEVEL 2)**

Rough Terrain Forklifts \* On-Road Dump Trucks \* Excavation Math \* Interpreting Civil Drawings \* Site Work \* Soils \* Skid Steers \* Loaders

**25-037** Mondays & Wednesdays 11Aug25 – 22Apr26 6:00 pm – 8:30 pm Tiyan Training Facility room A201

## **HEAVY EQUIPMENT OPERATOR (LEVEL 3)**

Finishing & Grading \* Compaction Equipment \* Backhoes \* Off-Road Dump Trucks \* Dozers \* Excavators \* Motor Graders

24-088 Mondays & Wednesdays 10Mar25 – 21Jan26 6:00 pm – 8:30 pm Tiyan Training Facility room A101





## Ongoing & Upcoming Course Schedule August 2025

## **PLUMBING (LEVEL 1)**

Introduction to the Plumbing Industry \* Plumbing Safety \* Tools of the Plumbing Trade \* Introduction to Plumbing Math \* Introduction to Plumbing Drawings \* Plastic Pipe & Fittings \* Copper Pipe & Fittings \* Cast-Iron Pipe & Fittings \* Steel Pipe & Fittings \* Introduction to Plumbing Fixtures \* Introduction to Drain, Waste, & Vent (DWV) Systems\* Introduction to Water Distribution Systems

24-084 Saturdays

15Feb25 - 06Sep25

8:00 am - 12:00 noon

Tiyan Training Facility room A206

## **PLUMBING (LEVEL 4)**

Business Principals for Plumbers \* Fundamentals of Crew Leadership \* Water Pressure Booster & Recirculation Systems \* Indirect & Special Waste \* Hydronic & Solar Heating Systems \* Codes \* Private Water Supply Well Systems \* Private Waste Disposal Systems \* Swimming Pools & Hot Tubs \* Plumbing for Mobile Homes & Travel Trailers \* Introduction to Medical Gas & Vacuum Systems

25-031 Tuesday & Thursdays 12Aug25 – 17Mar26

6:00 pm - 8:30 pm

Tiyan Training Facility room A202

#### PROJECT MANAGEMENT

Introduction to Project Management \* Safety \* Interpersonal Skills \* Issues & Resolutions \* Construction Documents \* Construction Planning \* Estimating & Cost Control \* Scheduling \* Resource Control \* Quality Control \* Continuous Improvement

25-029 Saturdays

05Jul25 - 27Dec25

1:00 pm - 6:00 pm

Tiyan Training Facility room A103

## **DIESEL TRUCK MECHANIC (LEVEL 1)**

Introduction to Servicing Heavy-Duty Trucks \* Shop Safety & Operations \* Tools & Fasteners \* Maintenance Programs \* Fundamentals of Electricity \* Fundamentals of Electronics & Computers \* Batteries \* Charging Systems \* Chassis Electrical Circuits \* Diagnosis & Repair of Electronic Circuits \* Multiplexing

25-027 Tuesdays & Thursdays 20May25 - 02Apr26

6:00 pm - 8:30 pm

Tiyan Training Facility room B201 / B202





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## **ELECTRICAL (LEVEL 1)**

Orientation to the Trade \* Electrical Safety \* Introduction to Electrical Circuits \* Electrical Theory \* Introduction to the National Electric Code \* DeviceBoxes \* Hand Bending \* Raceways & Fittings \* Conductors & Cables \* Basic Electrical Construction Drawings \* Residential Electrical Services \* Electrical Test Equipment

25-024 Tuesdays & Thursdays 13May25 – 28Oct25 6:00 pm – 8:30 pm Tiyan Training Facility room A106

## **ELECTRICAL (LEVEL 2)**

Alternating Current \* Motors: Theory & Application \* Electrical Lighting \* Conduit Bending \* Pull & Junction Boxes \* Conductor Installations \* Cable Tray \* Conductor Terminations & Splices \* Grounding & Bonding \* Circuit Breakers & Fuses \* Control Systems & Fundamental Concepts

**25-003** Monday & Wednesdays 26Feb25 – 24Sep25 6:00 pm – 8:30 pm Tiyan Training Facility room A105 **25-004** Saturdays 16Aug25 – 28Feb26 1:00 pm – 6:00 pm Tiyan Training Facility room B102

## **ELECTRICAL (LEVEL 3)**

Load Calculations – Branch & Feeder Circuits \* Conductor Selection & Calculations \* Practical Applications of Lighting \* Hazardous Locations \* Overcurrent Protection \* Distribution Equipment \* Transformers \* Commercial Electrical Systems \* Motor Calculations \* Voice, Data, & Video \* Motor Controls

**25-007** Tuesdays & Thursdays 06Mar25 – 07Oct25 6:00 pm – 8:30 pm Tiyan Training Facility room A105 **25-052** Monday & Wednesdays 01Oct25 – 20May26 6:00 pm – 8:30 pm Tiyan Training Facility room A105

## **ELECTRICAL (LEVEL 4)**

Load Calculations – Feeder & Services \* Health Care Facilities \* Standby & Emergency Systems \* Basic Electronic Theory \* Fire Alarm Systems \* Specialty Transformers \* Advanced Motor Controls \* HVAC Controls \* Heat Tracing & Freeze Protection \* Motor Operation & Maintenance \* Medium Voltage Termination & Splices \* Specialty Locations\* Fundamentals of Crew Leadership

**25-008** Monday & Wednesdays 05May25 – 10Nov25 6:00 pm – 8:30 pm Tiyan Training Facility room A106 **25-053** Tuesdays & Thursdays 09Oct25 – 02Jul26 6:00 pm – 8:30 pm Tiyan Training Facility room A105





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## **HEATING VENTILATION AIR CONDITIONING (LEVEL 1)**

Introduction to HVAC \* Trade Mathematics \* Basic Electricity \* Introduction to Heating \* Introduction to Cooling \* Introduction to Air Distribution Systems \* Basic Copper & Plastic Piping Practices \* Soldering & Brazing \* Basic Carbon Steel Piping Practices \* USEPA Section 608 certification

**25-023** Saturdays 15Mar25 – 30Aug25 1:00 pm – 6:00 pm Tiyan Training Facility room A105 **25-032** Tuesdays & Thursdays 27May25 – 11Dec25 6:00 pm – 8:30 pm Tiyan Training Facility room B102

## **HEATING VENTILATION AIR CONDITIONING (LEVEL 2)**

Alternating Current \* Compressors \* Refrigerant & Oils \* Leak Detection, Evacuation, Recovery, & Charging \* Metering Devices \* Heat Pumps \* Basic Maintenance \* Chimneys, Vents, & Flues \* Sheet Metal Duct Systems \* Fiberglass & Flexible Duct Systems \* Commercial Airside Systems \* Air Quality Equipment \* Introduction to Hydronic Systems

**25-002** Tuesdays & Thursdays 15May25 – 27Jan26 6:00 pm – 8:30 pm Tiyan Training Facility room B101 **25-038** Saturdays 05Jul25 – 28Feb26 8:00 am – 12:00 noon Tiyan Training Facility room A105

## **HEATING VENTILATION AIR CONDITIONING (LEVEL 3)**

Fasteners, Hardware, & Wiring Terminations \* Control Circuit & Motor Troubleshooting \* Troubleshooting Cooling \* Troubleshooting Heat Pumps \* Troubleshooting Gas
Heating \* Troubleshooting Oil Heating \* Troubleshooting Accessories \* Zoning, Ductless, & Variable Refrigerant Flow Systems \* Commercial Hydronic Systems \* Steam Systems
\* Retail Refrigerant Systems \* Customer Relations

**24-074** Friday & Saturday 23Dec24 – 04Oct25 6:00 pm – 8:30 pm Tiyan Training Facility room B102 **25-006** Mondays & Wednesdays 12May25 – 14Jan26 6:00 pm – 8:30 pm Tiyan Training Facility room B101

## **HEATING VENTILATION AIR CONDITIONING (LEVEL 4)**

Water Treatment \* Indoor Air Quality \* Energy Conservation Equipment \* Building Management Systems \* System Air Balancing \* System Startup & Shutdown \* Construction Drawings & Specification \* Heating & Cooling System Design \* Commercial & Industrial Refrigeration Systems \* Alternative & Specialized Heating & Cooling Systems \* Fundamentals of Crew Leadership

**25-054** Fridays & Saturdays 11Oct25 – 23May26 6:00 pm – 8:30 pm Tiyan Training Facility room B102