



Ongoing & Upcoming Course Schedule

April 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

25-011	Mondays & Wednesdays	03Feb25 – 11Jun25	6:00 pm – 8:30 pm	Tiyan Training Facility room A103
25-022	Tuesday & Thursdays	13Mar25 - 15Jul25	6:00 pm – 8:30 pm	Tiyan Training Facility room A203 / A204
25-019	Tuesday & Thursdays	25Mar25 - 24Jul25	6:00 pm – 8:30 pm	Tiyan Training Facility room A103
25-026	Mondays & Wednesdays	14Apr25 – 20Aug25	6:00 pm – 8:30 pm	Tiyan Training Facility room A204

EROSION AND SEDIMENT CONTROL

Erosion & Sediment Control

25-018	Friday & Saturday	04Apr25 – 05Apr25	8:00 am - 5:00 pm	Tiyan Training Facility room A205
25-028	Friday & Saturday	02May25 - 03May25	8:00 am - 5:00 pm	Tiyan Training Facility room A205

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

24-062	Saturdays	12Oct24 – 31May25	1:00 pm – 6:00 pm	Tiyan Training Facility room A103
25-029	Saturdays	07Jun25 – 29Nov25	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 22Apr25 – 05Mar26 6:00 pm – 8:30 pm Tiyan Training Facility room B201 / B202

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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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 22Apr24 – 28Aug25 1:00 pm – 6:00 pm Tiyan Training Facility room A101

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 3)

Applied Math * Sizing & Protecting the Water Supply System * Potable Water Supply Treatment * Types of Venting * Sizing DWV & Storm Systems * Sewage Pumps & Sump

Pumps * Corrosive-Resistant Waste Piping * Compressed Air * Service Plumbing

24-078 Tuesday & Thursdays 17Dec24 – 31Jul25 6:00 pm – 8:30 pm Tiyan Training Facility room A201/A202

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

FIELD SAFETY

Introduction to Safety * Work-Zone Safety * Steel Erection * Concrete & Masonry * Confined Spaces & Excavation * Electrical Safety * Working from Elevations * Heavy Equipment, Forklifts & Cranes * Introduction to Materials Handling

25-025 Mon-Wed-Fridays 14Apr25 – 23May25 6:00 pm – 8:30 pm Tiyan Training Facility room A202





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CONSTRUCTION CRAFT LABORER (LEVEL 1)

CARPENTRY 1: Introduction to the Trade * CARPENTRY 1: Building Materials, Fasteners, & Adhesives * CARPENTRY 3: Properties of Concrete * CARPENTRY 4: Site Layout One – Differential Leveling * CARPENTRY 3: Handling & Placing Concrete * CARPENTRY 3: Foundations & Slab on Grade

24-083 Saturdays

12Apr25 - 23Aug25

1:00 pm - 6:00 pm

Tiyan Training Facility room A203

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 Saturdays

12Apr25 – 29Nov25

8:00 am - 12:00 noon

Tiyan Training Facility room A203

CARPENTRY (LEVEL 2)

Commercial Drawings * Cold-Formed Steel Framing * Exterior Finishing * Thermal & Moisture Protection * Roofing Applications * Doors & Door Hardware * Drywall Installing * Drywall Finishing * Suspended Ceilings * Window, Door, Floor & Ceiling Trim * Cabinet Installation

24-051

Tuesday & Thursdays 27Aug24 - 03Jun25 6:00 pm - 8:30 pm

Tiyan Training Facility room B205/B206

HEAVY EQUIPMENT OPERATOR (LEVEL 1)

Orientation to the Trade * Heavy Equipment Safety * Identification of Heavy Equipment * Basic Operations Techniques * Utility Tractors * Introduction to Earth Moving * Grades, Part One

24-086

Mondays & Wednesdays

13Jan25 - 09Jun25

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

Mondays & Wednesdays 24-088

10Mar25 - 21Jan26

6:00 pm - 8:30 pm

Tiyan Training Facility room A101





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ELECTRICAL / ELECTRONIC SYSTEM TECHNICIAN (LEVEL 1)

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

24-081 Tuesdays & Thursdays 14Dec24 – 27May25 8:00 am – 12:00 noon Tiyan Training Facility room B102 **25-024** Saturdays 05Apr25 – 13Sep25 8:00 am – 12:00 noon Tiyan Training Facility room A105

ELECTRICAL / ELECTRONIC SYSTEM TECHNICIAN (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 28Feb25 – 24Sep25 6:00 pm – 8:30 pm Tiyan Training Facility room A105 **25-004** Monday & Wednesdays 26Mar25 – 27Oct25 6:00 pm – 8:30 pm Tiyan Training Facility room A205/A206

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

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

 24-013
 Monday & Wednesdays
 26Aug24 – 21May25
 6:00 pm – 8:30 pm
 Tiyan Training Facility room A106

 25-008
 Tuesdays & Thursdays
 18Mar25 – 04Dec25
 6:00 pm – 8:30 pm
 Tiyan Training Facility room A106





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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

 24-085
 Saturdays
 14Dec24 – 28Jun25
 8:00 am – 12:00 noon
 Tiyan Training Facility room B102

 25-023
 Saturdays
 15Mar25 – 27Sep25
 1:00 pm – 6:00 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 01Apr25 – 04Dec25 6:00 pm – 8:30 pm Tiyan Training Facility room B101

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 Mondays & Wednesdays 23Dec24 – 03Sep25 6:00 pm – 8:30 pm Tiyan Training Facility room B102 **25-006** Mondays & Wednesdays 31Mar25 – 26Nov25 6:00 pm – 8:30 pm Tiyan Training Facility room B101