

GTA Natural Gas Training Curriculum Map

This map is intended to provide guidance on how GTA courses can be implemented. It is only a suggestion to get you started, so you may implement them in any order or combination that suits your needs. They are grouped in 3 levels: Basic, Intermediate, and Advanced. The first column in each level provides a grouping order to suggest an order that courses might be taken. The second column identifies the WBT (web-based training) Certificate Program name for WBTs or a Topic name for ILTs (instructor-led training) or SBs (skill-builders, or on-the-job training). The final column is a list of the content in the order they are suggested to be taken.

Basic

Courses **Highlighted Green** are **New**
 Courses **Highlighted Red** have been **Retired**

Order 0= Any Order a, b, c= Order within group	WBT Certificate Program	WBT Content ILT = Instructor Led Training SB = Skill Builders (On-the-Job Training) All others are WBTs
1a	Basic Gas Measurement Technician WBT Certificate	<ul style="list-style-type: none"> • Gas Industry Overview • Gas Properties 1 • Gas Properties 2 • Drawing Sets and Print Reading • Meter Station Drawings • Introduction to Instrumentation • Introduction to SCADA • Safety in Gas Measurement • Introduction to Gas Measurement • Introduction to Gas Measurement Standards • Gas Flow Measurement Fundamentals • Introduction to Lost-and-unaccounted-for Gas (LAUF)
2a	Basic Gas Meters WBT Certificate	<ul style="list-style-type: none"> • Introduction to Gas Flow Meters • Orifice and Cone Meters for Gas • AGA 3 Part 1 • AGA 3 Part 2 • AGA 3 Part 3
3a	Basic Gas Meters WBT Certificate	<ul style="list-style-type: none"> • Coriolis Meters Operation and Purpose for Gas • Coriolis Meters Theory and Design for Gas • Introduction to Ultrasonic Meters retired in 2024 • Ultrasonic Meter Definitions & Components for Gas • Ultrasonic Meter Theory of Operation for Gas

		<ul style="list-style-type: none"> • Ultrasonic Meter Design for Gas • Ultrasonic Meter Calibration for Gas • Ultrasonic Meter Installation for Gas • Ultrasonic Meter Inspection, Maintenance and Diagnostics for Gas replaced Ultrasonic Meters Maintenance and Troubleshooting in 2024
0	Basic Electronics WBT Certificate	<ul style="list-style-type: none"> • Basic Electronics: Power Supplies, Rectifier Circuits, and Power Supply Filters • Basic Electronics: Power Supplies, Voltage Regulators and Integrated Circuits • Basic Electronics: Switching Power Supplies • Basic Electronics: Bipolar Transistor Fundamentals • Basic Electronics: Diodes • Basic Electronics: Operational Amplifiers • Basic Electronics: Special Semiconductor Devices
0	Electric Power Fundamentals WBT Certificate	<ul style="list-style-type: none"> • Electric Power Fundamentals: Electrical Safety • Electric Power Fundamentals: Basic Electrical Theory • Electric Power Fundamentals: Test Equipment • Electric Power Fundamentals: AC Generation • Electric Power Fundamentals: Grounding Practices • Electric Power Fundamentals: AC and DC Motors • Electric Power Fundamentals: Controlling Motor Starting • Electric Power Fundamentals: Motor Control Fundamentals • Electric Power Fundamentals: RLC Circuits and Transformers
0	Applied Physics WBT Certificate	<ul style="list-style-type: none"> • Applied Physics: An Introduction • Applied Physics: Dynamics • Applied Physics: Nature of Matter • Applied Physics: Energy, work and Power • Applied Physics: Heat and Heat Transfer • Applied Physics: Mechanics
0	Math WBT Certificate	<ul style="list-style-type: none"> • Industrial Math: Whole Numbers and Fractions • Industrial Math: Decimals, Percentages, and Square Roots • Industrial Math: Algebraic Operations, and Equations

		<ul style="list-style-type: none">• Industrial Math: Exponents, Radicals, and Scientific Notation• Industrial Math: Geometry 1• Industrial Math: Geometry 2 and Trigonometry• Industrial Math: Statistics and Uncertainty Principles
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Intermediate

Courses **Highlighted Green** are **New**

Courses **Highlighted Red** have been **Retired**

Order 0= Any Order a, b, c= Order within group	WBT Certificate Program	WBT Content ILT = Instructor Led Training SB = Skill Builders (On-the-Job Training) All others are WBTs
4a	Introduction to Electrical and Instrumentation WBT Certificate	<ul style="list-style-type: none"> • Introduction to Electrical Concepts for Measurement • Signal Types • Instrumentation - Field Devices, Flow Computers and PLCs • Wiring, Loops, Diagrams and Local Power Distribution • Multimeters, Process Calibrators & HART Communicators
4a	Intermediate Gas Measurement Technician WBT Certificate	<ul style="list-style-type: none"> • Gas Measurement Standards API 21.1 All Meter Types • Gas Turbine Meter Standards • Gas Turbine Flow Meters • Gas Positive Displacement Meters • Basics of Gas Chromatography Part 1 • Basics of Gas Chromatography Part 2
5a	Intermediate Gas Measurement Technician WBT Certificate	<ul style="list-style-type: none"> • Gas Quality Instrumentation • Gas Odorization Facilities
6a	Intermediate Gas Measurement Technician WBT Certificate	<ul style="list-style-type: none"> • Basics of Electronic Flow Measurement (EFM) for Gas 1 • Basics of Electronic Flow Measurement (EFM) for Gas 2

Advanced

Courses **Highlighted Green** are **New**

Courses **Highlighted Red** have been **Retired**

Order 0= Any Order a, b, c= Order within group	WBT Certificate Program	WBT Content ILT = Instructor Led Training SB = Skill Builders (On-the-Job Training) All others are WBTs
7a	Advanced Gas Measurement Technician WBT Certificate	<ul style="list-style-type: none"> • Communication and Protocols 1 • Communication and Protocols 2 • Instrumentation Systems
8a	Advanced Gas Measurement Technician WBT Certificate	<ul style="list-style-type: none"> • Basics of Control Valves
10a	Advanced Gas Measurement Technician WBT Certificate	<ul style="list-style-type: none"> • Fluid Mechanics Fundamentals
11	Advanced Gas Measurement Technician WBT Certificate	<ul style="list-style-type: none"> • Basic Troubleshooting 1 • Basic Troubleshooting 2