Volume 1

Workforce

for a Competitive Edge

Train With CTS

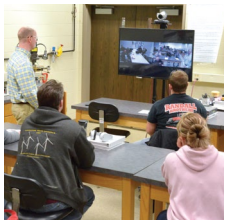
On Site
Online
On Campus

Leadership

Lean

Computer/Software

Maintenance/Technical



Elearning/Video/Web

Safety

Northwest State Community College

custom | training | solutions

A DIVISION OF NORTHWEST STATE COMMUNITY COLLEGE

Archbold | Northwest State Community College
22600 SR 34

Toledo | UT Scott Park Campus
Off Parkside between Nebraska and Hill

Contents

Industrial Technology

Maintenance/Technical Training

Intro to GibbsCAM
This is an introductory class on the use and application of GibbsCAM software. The focus will be on safety in programming, GibbsCAM interface, CAD elements, view, creating geometry, tool creation and description, tooling, machine operation (mill, lathe, EDC, etc.), rendering and post processing. Plenty of hands on with computer, CNC mills and lathe. This is a 16-hour course.

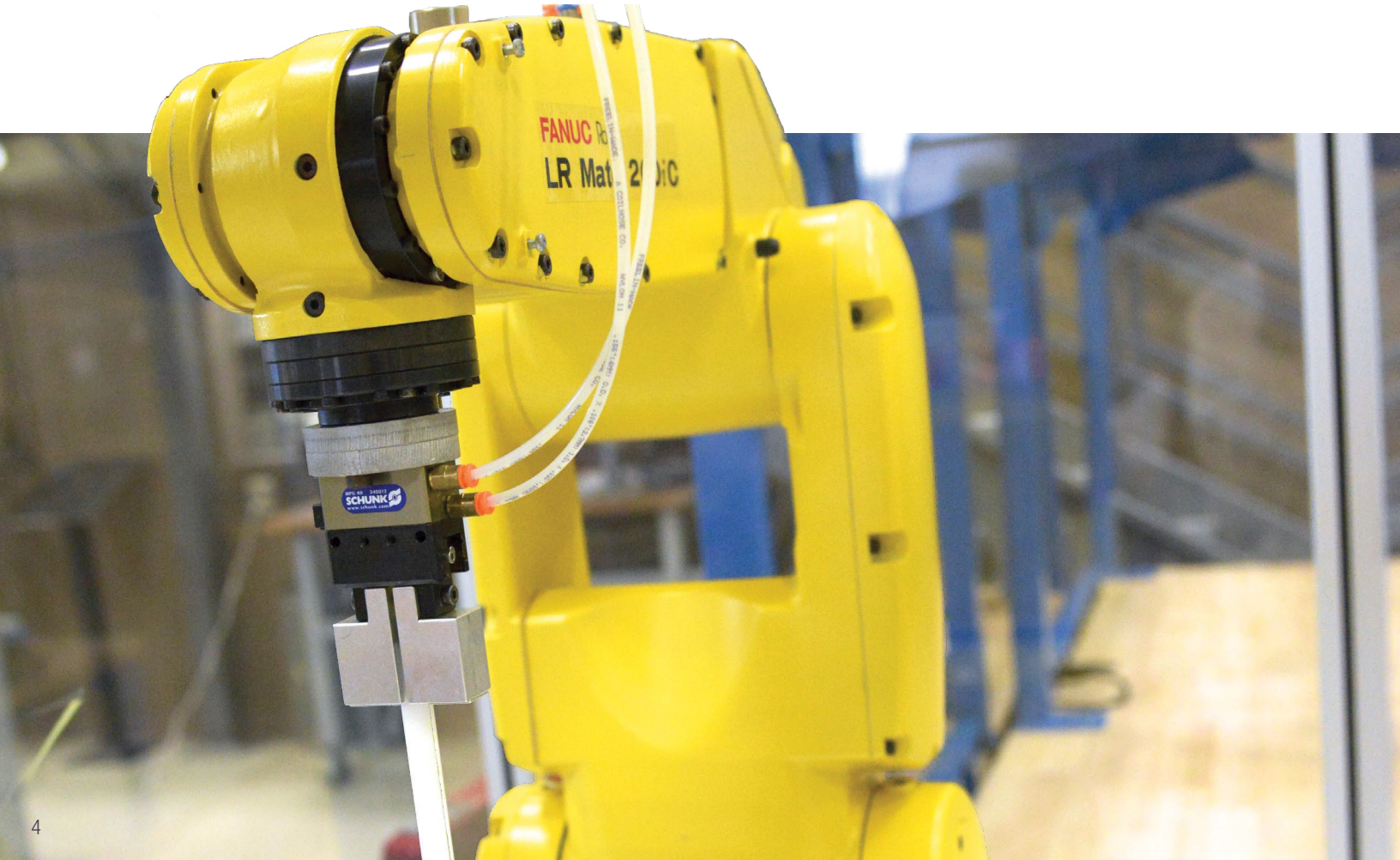
Advanced GibbsCAM
An advanced study of GibbsCAM software, including: advanced mill, introductory 3D, coordinate systems, geometry creation in 3D, mulit-axis basics, solid surfacer, solid modeling, surface modeling, core and cavities, 3D machining, lace cutting, tool path projections and importing (models, drawings and geometry). This is a 16-hour course.

Intro to MasterCAM
You will become proficient in turning programming operations such as: facing, roughing, finishing, threading, grooving, drilling, and boring. You will also learn how to verify the toolpaths using a solid-based toolpath verification. You will learn modeling techniques like revolved, extrude, loft, and sweep commands. You will learn how to modify the solid using filleting, chamfering and shelling features and how to reorder and edit operations using the history tree. You will also learn how to use model prep functions to modify solids without history based on selected faces or features.
This is a 16-hour course.

CAD for Machining
A course in the fundamentals of computer-aided design, utilizing state of-the-art microcomputer hardware and AutoCAD software. Covers fundamental Windows XP system commands and Auto-CAD application commands. Gives the student the opportunity to become proficient, in a hands-on environment, in developing fundamental 3D solid models and producing fundamental 2D drawings from the solid models. This is an 18-hour course.

Servo Motors (Allen Bradley) Level I
The course is a beginning class on PLC based servo systems. The course will be based on Allen-Bradley's ControlLogix motion controllers and the Ultra 3000SE drive. Topics covered in the class will be hardware components that make up a servo system, Ultra 3000SE wiring connections, configuring a SERCOS interface and using RSLogix 5000 programming software to commission a servo axis. This is an 8-hour course.

Allen Bradley ControlLogix PLC Level I
This is an introductory course on the ControlLogix system hardware, instruction set, and associated software. The focus of this class will be on operation, maintenance and troubleshooting. The students will learn how to set up communication drivers in RSLinx, and utilize the RSLogix5000 to do maintenance and programming tasks. Students will also learn the operation of local and remote I/O systems, as well as communication modules used with ControlLogix. This is a 16-hour course.



Technical Courses

Allen Bradley ControlLogix PLC Level II
This is an intermediate level course on the ControlLogix system. The focus of this class will be on tags, arrays, data types, I/O forcing, searching a project, and analog I/O setup. The students will learn how to setup an ethernet (ENB) module for communications. An excellent course for maintenance & engineering personnel. This is a 16-hour course.

Intro to DeviceNet (Allen Bradley)
This is a beginning course on the operation of the DeviceNet network. The course will be on the basic network components and using RSNetWorx to view a network and to install/replace nodes. The focus will be on Allen Bradley products using the 1756-DNB scanner for the ControlLogix. Trainees will learn about component scan lists, scanner tags and using RSLinx to interface to the network. Advanced component mapping of drives will be covered, manual node commissioning and explicit messaging from the processor to DeviceNet components will be covered. PLC / panelview set-up / programming to control the DeviceNet components will also be included. This is a 16-hour course.

Industrial Ethernet Basics
An introductory course on the set-up and operation of the ethernet. The focus of the course will be on using ethernet with factory fl oor devices (i.e. PLCs). An introductory course on the setup and operation of Ethernet, for factory fl oor communications. The focus of the seminar will be on understanding how to setup IP addresses for PLCs and computer systems, as well as how to utilize RSLinx to communicate to these devices. Configuring for static or dynamic addressing will also be covered via DHCP or BootP methods. Cabling and networking hardware will also be covered in this seminar. This is an 8-hour course.

ControlNet Basics
The course covers the ControlNet network using Allen Bradley ControlLogix PLCs. The course will use 1756-CNB communication modules as network nodes. Topics covered in the class will be hardware components that create a ControlNet network, confi guration of nodes and software products used for ControlNet. Software products, RSLinx, RSLogix 5000 and RSNetWorx for ControlNet, will be used to monitor, confi gure and troubleshoot a network. This is an 8-hour class.

CAT5/5e Technology Review and Installation Guide
This is a beginning course on standard data cabling. We discuss the general use of data cabling, but then focus on the implementation of CAT5/5e data cabling and the termination of that type of cable. Students will have hands-on experience using RJ45 crimpers, patch panel termination and wall jack termination using a punch down tool. This is a 6-hour course.

Allen Bradley PanelView or PanelViewPlus HMI Basics
Custom Training Solutions offers technical training on both the standard PanelView HMI and the PanelViewPlus HMI in separate courses. The student will review the programming software, communications set up and tag database layout. The student will learn how to develop standard objects, input numerical values and understand changing/displaying values within a PLC application. Students will also create alarming systems within the PanelView terminal. This is an 8-hour course.

Industrial Technology

Wonderware HMI Basics
This is an introductory course on the popular human machine Interface software used for industrial automation. The focus of this training will be on the maintenance of the Wonderware system. The hardware, operating system, and application will be studied, as well as the RSLinx communication to a PLC. The course will also cover development/modification of a sample application to show how the interaction of tags, objects, animation links, etc., form a working HMI project. This is an 8- hour course.

Instrumentation Basics
This is an introductory course on the basic operation and troubleshooting of analog systems in an industrial or process environment. The students will learn sensors, transmitters, controllers and indicators, as well as the control devices used in a process loop. This is an 8-hour course.

Instrumentation Advanced
This course is focused toward plant maintenance personnel that are responsible for maintaining and troubleshooting instrumentation & process controls systems in a production environment. Instrumentation terms will be discussed along with an emphasis on applied theory and troubleshooting. This will be accomplished by observing typical transducer and controller operation characteristics. The student will be required to identify, calibrate, and troubleshoot individual components and complete systems. This is a 32-hour course.

Geometric Dimensioning & Tolerancing (GD&T)
This course provides the students with a foundation in the skills needed to read and follow blueprints using geometric dimensioning and tolerancing (GD&T). The course deals with basic geometric dimensioning and tolerancing methods as interpreted in the ASME Y14.5M. The student will learn to read geometric tolerancing symbolism and terms. This is a 10-hour course delivered via a webinar style of training. This training will be delivered to your home, office or conference room.

Intro to Quality & SPC
An overview of quality fundamentals and an introduction to statistical process control charting. This course was designed for manufacturing personnel from all areas. Course includes many in class exercises to reinforce the quality principles and for the trainees to gain “hands-on” experience by applying and interpreting basic quality tools and control charts. Topics include SPC Tools, variations and statistics, charting, XBar, & R charts, and much more. This 10-hour course delivered via a webinar style of training. This training will be delivered to your home, office, or conference room.

Basic Electrical Troubleshooting
This 24-hour seminar is focused toward plant maintenance personnel that are responsible for maintaining and troubleshooting electrical equipment in a production or process environment. Basic electrical terms will be discussed along with an emphasis on wiring and troubleshooting. Trainees will wire simple control circuits and troubleshoot faulted equipment, by using techniques and equipment covered in the training. Components covered include start/stop stations, limit switches, solenoids, pilot lights, relays, motors, motor starters and control transformers. An emphasis will be on interpreting electrical prints.

Intro to PLC (SLC-500)/Micro/Compact
The purpose of this course is to train engineering and maintenance personnel on the operation and basic troubleshooting of Allen Bradley PLC systems, in order to become more effective troubleshooters on production equipment. The trainees will learn how to wire and troubleshoot the PLC hardware, and utilize RSLinx and RSLogix to navigate through the PLC program for troubleshooting. This class will focus on the hardware of the SLC-500 modular I/O unit with discrete and analog I/O. This is a 16-hour course.

Variable Frequency Drives Troubleshooting
The purpose of this course is to train engineering and maintenance personnel on the operation and basic troubleshooting of the variable frequency drive systems, in order to become more effective troubleshooters on production equipment. The trainees will learn how to wire, program and troubleshoot the Rockwell Automation hardware, as well as basic induction motor operation & troubleshooting. This course will also focus on component identification, preventative maintenance and troubleshooting techniques. This is a 16-hour course. Customer can choose PowerFlex 40, PowerFlex 70 or PowerFlex 525 VFD drive trainers.

Vibration Analysis Basics Infared
This course is designed for the new user of vibration analysis or predictive maintenance instrumentation or for the individual that desires to become more familiar with the basics of vibration. The relationship between the mechanical condition of machinery and vibration is presented. This background helps show how vibration detection and analysis can be used in a cost-effective program to identify machinery problems and schedule repairs to avoid costly machine downtime. Basic vibration measures including amplitude, frequency, and phase are discussed. Students will realize significant benefits from the practical hands-on measurement exercises using modern data collectors and analyzers. The material in this course is applicable to all vendors’ vibration data collection or analysis equipment. This is a 24-hour course.

Technical Courses

Allen Bradley GuardLogix

The GuardLogix class is a beginning course on Allen Bradley GuardLogix PLC hardware. The course will use ethernet as the communication network to connect the GuardLogix I/O block back to the GuardLogix PLC. The class lessons will compare and contrast standard ControlLogix PLCs and GuardLogix PLCs as to project structure, confi gurations and tags. Basic layout and system set-up of GuardLogix processors will be covered. Set-up and confi guration of GuardLogix I/O blocks will be included. Troubleshooting of network, I/O connections, and processor configurations through the diagnostic LEDs are also incorporated in the class. This is a 16-hour course.

Hardware used: 1756-ENBT – Ethernet Module
1756-L61S – GuardLogix PLC
1756-LSP – Safety Partner Processor
1791ES-IB8XOBV4 – Guard I/O EtherNet/IP Safety Modules

Siemens S7 PLC Level I

This is an introductory course for the S7 product and family of PLC controllers. Hardware identification and configuration with software configuration topics are included. Program structure and instruction sets with hands on demonstration equipment is covered. Students will use digital, analog and timing function labs to reinforce plant floor applications. Students will be required to enter logic, test and debug ladder logic. This is a 24-hour course.

Siemens Profibus DP Network

This course will help the student with installation and maintenance aspects of the Siemens profibus DP network. Hands on troubleshooting using hardware, software and configuration tools will be utilized. Proper installation of connectors, cabling and testing topics will be covered. This is a 16-hour course.

Industrial Fluid Power

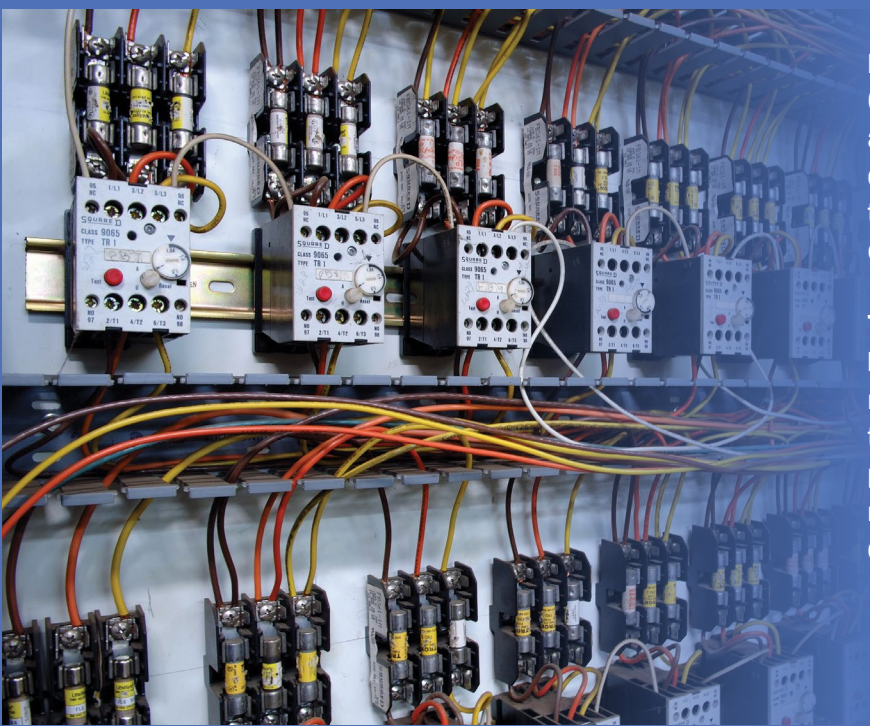
Fluid power is an efficient way to move energy without mechanical belts, chains, or levers. The physics of fluids, components, troubleshooting and design applications for hydraulic & pneumatic systems are covered in this class. This is an 8-hour course.

Industrial Fluid Power II

In this class, the student will use electro-pneumatic valves, programmable logic controllers (PLCs), in/out boxes, and various types of electrical switching devices. The students will build, design, and troubleshoot machines using - pneumatics, hydraulics, and electronics. Industrial fluid power is a prerequisite for this course. This is an 8-hour course.

Robotics I

An Introduction to robotics is a study of basic robotic systems and operations. The objective is to introduce robotic systems and programming reinforced with “hands-on” training on a robot, teach pendant and controller. Different types of robot systems and their components will be explained. The robot and the controller will be broken down into parts such as power supply, servo motors and amplifiers, feedback systems, and inputs and outputs, and it’s function. System back-up, robot mastering, coordinate systems, tool center point, register data, and program editing will be explained and used in lab exercises. The FANUC robot and controller system will be used in the labs with reference to other robotic systems as well. This is a 16-hour course.



Maintenance Network Services

CTS offers a knowledgeable team trained in manufacturing and IT networks. We can provide network assessments, design and planning. Maintenance networks provide your technicians with quick access to PLC and other automation equipment to increase output and reduce downtime.

Technical Product Inventory

Let CTS inventory your installed automation controls and mechanical equipment to develop an accurate training plan that targets technical training where it is most needed. A CTS professional will inventory your plant floor equipment and return with a detailed report of the installed equipment and a detailed training plan for that equipment.

Industrial Technology

Robotics II
Advanced robotic systems is a continued study of basic robotic operations. The objective is to learn more advanced robot programming, flex cell system integration, and troubleshooting reinforced with "hands-on" training on a FANUC robot system. Program styles, concepts, and interfacing will be discussed based upon the trainees actual manufacturing work cells. The FANUC robot and controller system will be used in the labs with reference to other robotic systems as well. This is a 16-hour course.
NOTE: The robot training session can be customized to suit the customer's needs as per their actual manufacturing system.

Industrial Electricity I
This is an introductory electricity course for skilled trades personnel. The course is a study of DC and AC electricity principles, with a practical approach to applications in an industrial environment. The learner will obtain a knowledgeable understanding of the key symbols and abbreviations associated with the electrical trade, acquire a comprehensive understanding of basic electrical terminology, apply Ohm's Law to a number of relevant electrical applications, synthesize a number of components into a working system involving series, parallel, and series parallel circuits, and analyze and organize information gleaned from a malfunctioning circuit and restore that circuit to its original intention. This is a 16-hour course.

Industrial Electricity II
This course is an advanced study of industrial electricity providing comprehensive coverage of the control devices used within a contemporary industrial electrical system. The learner will apply a knowledgeable understanding of key symbols and abbreviations and apply that terminology to a number of components synthesizing them into a workable electrical circuit. Upon completion of this course the learner will be able to analyze and organize information gleaned from a malfunctioning circuit and restore that circuit to its original intention. This is a 16-hour course.

Electrical Prints & Troubleshooting
This course is a study of the systematic elimination of the various parts of a system or process to locate a malfunctioning part. The learner will obtain a knowledgeable understanding of the key symbols and abbreviations associated with the electrical trade, acquire a comprehensive understanding of the various devices associated with an electrical circuit, synthesize a number of electrical components associated with a viable sequence of operation, recognize a malfunctioning circuit through proper meter application, and apply informed terminology while troubleshooting and restoring a malfunction. This is a 16-hour course.

Motors and Motor Controls
This course is designed to be a comprehensive reference for use in industrial maintenance and electrical training programs. Each topic covered includes activities which reinforce the objectives presented. Topics covered range from motor types and controls to installing and troubleshooting electric motor drives. This is a 16-hour course.

HVACR I
An introductory heating, ventilation, air conditioning and refrigeration course for skilled trades personnel. The course is a study of basic thermo-dynamic principles, with a practical approach to applications in a residential, commercial and industrial environment. The course will cover basic heating and cooling concepts, refrigerant properties, psychometrics, terminology, safety, troubleshooting and applications of basic mechanical heating and cooling components and their electric/mechanical control. This is a 24 hour course.

HVACR II
An intermediate study of the HVAC field. Studies will include commercial and industrial designs and equipment, load calculations and system sizing. concepts of equipment control will be introduced featuring low voltage, high voltage methodologies This is a 24-hour course.

Technical Courses

GM/UAW Training Curriculum Review

Project Estimating Basics

Purpose:

- Train plant personnel (salary and hourly) the basics of submitting project or job estimate
- Train on understanding basic project management disciplines and processes
- Implement standardize processes within organization - improve communication and cooperation
  - Get everyone on the same page
  - Understand how costs are generated

Targeted Audience:

- Anyone involved in securing contracts from internal or external vendors.
- Recommend the following for initial training:
  - Project managers (engineer or maintenance)
  - Hourly trade representatives preparing the estimate

Course Content (Description):

- Day 1 - Training
  - Project scope development
- Work process analysis
  (Process mapping and work identification)
  - Project estimate development - worksheet templates to support the following:
- Machine installation
- Civil (concrete excavation)
- Equipment setting
- Sheet metal fabrication and installation
- Piping fabrication and installation – various types and sizes
- Electrical installation (conduit, connectors, buss duct, wire, etc.)
  - Project estimate (bid) submittal
  - Project evaluation - tracking project results and learning's
  - Project tracking – tracking project costs
- Day 2 – Case study for practical application and understanding
- Day 2 – Review various application templates
  - Equipment replacement
  - Equipment repair – pumps or various components
  - Tooling (die) repair

NOTE: Excel worksheet templates included for each phase of training.

Course Length:

- Twelve (12) classroom hours 8 to 14 students per class
  - Days: 2
  - Hours/day: 6

Course Facilitation: Two Instructors: Randy Groll and Jim Murphy

Custom Trainer Services

CTS can build customized training workstations designed specifically for your operation. Workstations can be used to reinforce training and keep your workforce sharp with practice skills. You can use workstations as a maintenance tool to check modules.

Want More?

In addition to the course descriptions provided, Custom Training Solutions can also bring the following training courses to your facility:

- Allen Bradley SLC-500, PLC-5, ControlLogix, CompactLogix and Devicenet
- Hydraulics & Pneumatics, Rigging, Bearing, Power Transmission
- HMI: Wonderware & Panelviews
- Siemens S7 PLC
- Instrumentation/Process Control
- Preventive/Predictive Maintenance Topics
- Plastics Training (Injection, Tooling, Materials, Extrusion, Setup)
- AutoCAD, Inventor, Solid Works
- OSHA, NEC
- GuardLogix
- Controlnet
- Ethernet

Or, we can customize a course to meet your specific needs.

IT'S ALL IN THE
DELIVERY

1. Instructor led, in person, at your place of business or ours.

2. Video conference training (multiple sites).

3. Web conferencing training (webinars).

4. Web courses (online training to take any time you like).

Employee Assessment Services

Ramsay Bldgtest
Test designed for use in selecting building maintenance candidates who require skills in areas such as electrical, plumbing, carpentry, and general repairs. This test has 60 multiple-choice items and takes less than an hour to complete. Measures following areas: electrical, print reading, plumbing, HVAC, general repairs, carpentry, painting, masonry, clerical/records/ miscellaneous.

Ramsay Air Conditioning Specialist – Form SWA-E
Test is designed for use in selecting individuals who require knowledge in the area of air conditioning and HVAC. This test has 60 multiple-choice items and takes less than an hour to complete. Measures following areas: print reading/electrical/test equipment, controls, welding/piping/plumbing, mechanical maintenance/machines & equipment, heating and ventilation & combustion, air conditioning and refrigeration.

Ramsay Machinist – Form AR-C
Test is designed for use in selecting journey-level machinist candidates who have knowledge in the following areas: heat treating, layout, cutting & assembly, print reading, steel/metals & materials, rigging, mechanical principles & repair, machine tools, tools/material & equipment, and machine shop lubrication. The test contains 60 multiple-choice items and takes about an hour to complete.

Ramsay Millwright – Form A3
The Ramsay Millwright Assessment is used to selecting millwright candidates for millwright Jobs that require installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings. This test has 60 multiple-choice items and takes about an hour to complete. The skill level measured is at journey-level. Areas measured are: hydraulics & pneumatics, burning & fabrication, print reading, power transmission & lubrication, pumps & piping, rigging, mechanical maintenance, shop equipment & tools, materials & equipment.

Ramsay Senior Maintenance Technician Millwright – Form SCM-1
The Senior Maintenance Technician Millwright Assessment is used for selecting millwright candidates in the millwright area above journey level that require installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings. This test has 120 multiple-choice items and takes about 2 hours to complete. This test is more difficult than the millwright test by measuring knowledge required by senior millwrights.

Ramsay Safety Violations Test – Form A
The Ramsay Safety Violations Assessment is designed to test knowledge of safety, specifically related to OSHA safety and violations of OSHA safety. This test has 100 multiple-choice items and takes about an hour and one half to complete. The skill level measured is at journey-level. Areas measured are: scaffolding, fall protection, hazard communication, lockout/ tagout, machine guarding, power press, mechanical power, electrical, excavation, and machine guarding (abrasive wheels).

Ramsay Job Safety Test – From JST
The Ramsay Job Safety Assessment is designed to serve as a supplement to many of the Ramsay Assessments. The skill level measured is at apprentice-level. This test has 50 multiple-choice questions and takes about 45 minutes to complete. Areas measured are: climbing safety, rigging safety, machine safety, electrical safety, and industrial safety.

Ramsay Team Skills – Form AR-C
The Ramsay Team Skills Assessment is a test of team knowledge and skills in the following areas: conflict resolution, group dynamics, communication skills, interpersonal skills, team decision making, productivity & motivation, leader & member skills. This test contains 35 multiple-choice items and takes about 45 minutes to complete. The assessment is designed at the trainee level. It can be used for a variety of manufacturing, production, office, administrative job positions and focuses on the individual's ability to work effectively as a part of a team.

Ramsay Maintenance Manager Assessment – Form A1
The Ramsay Maintenance Manager Assessment is a test of knowledge of maintenance and leadership skills. It is designed to use with first-line supervisors, who directly supervise and coordinate the activities or mechanics, electricians, installers, and repairers. It is a journey-level. This test has 60 multiple-choice items and takes about one hour to complete. It measures: mechanical, electrical, and leadership skills.

Employee Assessment Services

Assessments
Ramsay Corporation provides hundreds of up-to-date technical tests of job knowledge for production and maintenance employee selection, as well as basic skills, aptitude, and people skills tests. Use our tests to quickly assess deficiencies and create training plans. Improve your hiring, training, and promotion processes.

Test Validation Services
Ramsay Corporation provides custom test development and validation services using our database of 20,000 questions and 40 years of consulting experience. Let us help you improve your selection procedures by creating a test that fits your job description

Looking to Assess your Current Employees?
We have a number of comprehensive measures designed to help training programs identify areas of deficiency in the knowledge and skills of employees and applicants. Using information from these measures, you can customize your development plan to each individual to target their needs.

Mechanical
- Mechanical Maintenance Trainee
- MecTest
- Mechanical Technician

Electrical
- Electrical Maintenance Trainee
- ElecTest
- Electrical Technician

Various Crafts
- Equipment Operators
- Building Maintenance
- Welders, Pipefitters

MainTest
Ramsay Corporation's MainTest is the quickest and easiest way to identify and target areas for improvement in your workforce.

Our flagship product for diagnostic testing is the MainTest. This is a 21-category, 153-item test that provides detailed insight into the knowledge and skills of candidates. You can compare each candidate's scores, by category, with our national pool of data consisting of results from over 13,000 maintenance workers.

The MainTest is available for administration in both paper & pencil format and via our Online Testing System.

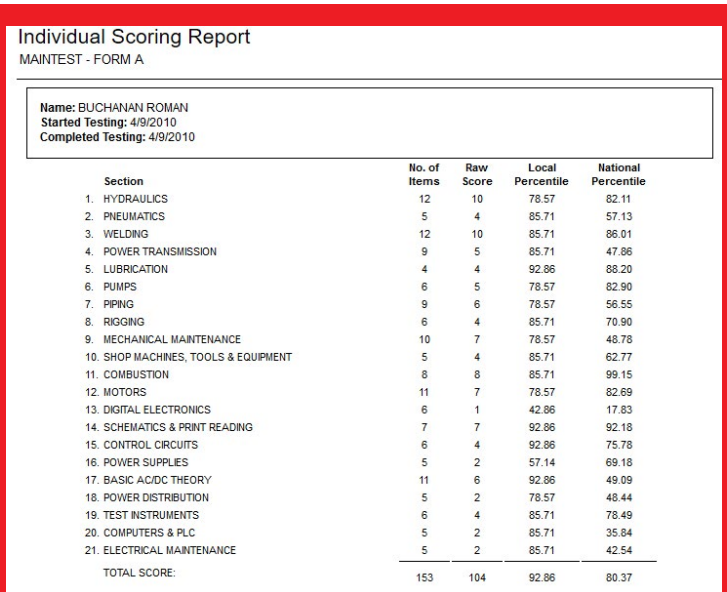
Looking to Fill Apprenticeships?
Ramsay Corporation has a number of basic skill and aptitude measures designed to complement an apprenticeship program. A number of our customers use a combination of off-the-shelf tests to select qualified candidates for their apprenticeships.

Basic Skills
Basic skills are skills such as reading, arithmetic, and basic troubleshooting.
- Combined Basic Skills* Our most popular product
- Measurement, Reading, & Arithmetic
- Electrical, Mechanical, and MultiCraft Apprentice Skills

Aptitude
Aptitude tests are assessments designed to measure the ability to learn a concept.
- Mechanical Aptitude Test
- Electrical Aptitude Test
- MultiCraft Aptitude Test

Want a Custom Solution?
Ramsay Corporation uses its comprehensive database of 20,000+ questions in 300+ areas and works with your job experts to create a solution that best fits your situation. Whether it is for pre-hire or individualized training, we can create the best assessments for your specific positions.

Additional information regarding our steps and procedures for creating custom validated tests can be found on our Validation page.

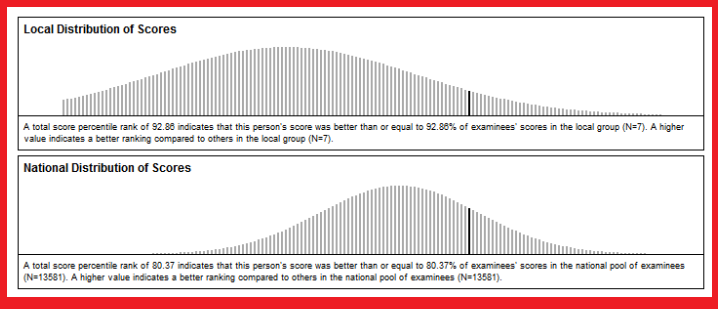


Individual Scoring Report

MAINTEST - FORM A

Name: BUCHANAN ROMAN
Started Testing: 4/9/2010
Completed Testing: 4/9/2010

Section	No. of Items	Raw Score	Local Percentile	National Percentile
1. HYDRAULICS	12	10	78.57	82.11
2. PNEUMATICS	5	4	85.71	57.13
3. WELDING	12	10	85.71	86.01
4. POWER TRANSMISSION	9	5	85.71	47.86
5. LUBRICATION	4	4	92.86	88.20
6. PUMPS	6	5	78.57	82.90
7. PIPING	9	6	78.57	56.55
8. RIGGING	6	4	85.71	70.90
9. MECHANICAL MAINTENANCE	10	7	78.57	48.78
10. SHOP MACHINES, TOOLS & EQUIPMENT	5	4	85.71	62.77
11. COMBUSTION	8	8	85.71	99.15
12. MOTORS	11	7	78.57	82.69
13. DIGITAL ELECTRONICS	6	1	42.86	17.83
14. SCHEMATICS & PRINT READING	7	7	92.86	92.18
15. CONTROL CIRCUITS	6	4	92.86	75.78
16. POWER SUPPLIES	5	2	57.14	69.18
17. BASIC AC/DC THEORY	11	6	92.86	49.09
18. POWER DISTRIBUTION	5	2	78.57	48.44
19. TEST INSTRUMENTS	6	4	85.71	78.49
20. COMPUTERS & PLC	5	2	85.71	35.84
21. ELECTRICAL MAINTENANCE	5	2	85.71	42.54
TOTAL SCORE:	153	104	92.86	80.37



Local Distribution of Scores

A total score percentile rank of 92.86 indicates that this person's score was better than or equal to 92.86% of examinees' scores in the local group (N=7). A higher value indicates a better ranking compared to others in the local group (N=7).

National Distribution of Scores

A total score percentile rank of 80.37 indicates that this person's score was better than or equal to 80.37% of examinees' scores in the national pool of examinees (N=13581). A higher value indicates a better ranking compared to others in the national pool of examinees (N=13581).

Employee Assessment Services

Maintenance Tests

Ramsay Electest
Test of electrical job knowledge for electrical repair and maintenance technicians. It can be used for job applicants and incumbents. The test has 60 multiple-choice items and takes less than an hour to complete. Measures following areas: motors, print reading, power supplies, power distribution, computer and PLC, mechanical, digital electronics, controls, basic AC/DC theory, test instruments, electrical maintenance.

Ramsay Maintest
Comprehensive diagnostic test of mechanical and electrical knowledge and skills. It can be used for two job applicants and incumbents. The test has 153 multiple-choice items and takes about two and one half hours to complete. Measures following areas: hydraulics, welding, lubrication, piping, mechanical maintenance, combustion, digital electronics, controls, basic AC/DC theory, test instruments, electrical maintenance, pneumatics, power transmission, pumps, rigging (light), shop machines (operation, maintenance, use), motors, print reading, power supply, power distribution, compute and PLC.

Ramsay Mectest
Test of mechanical knowledge and skill for maintenance and repair job positions. It can be used for selecting candidates for maintenance and repair positions. The test has 60 multiple-choice items and takes less than an hour to complete. Measures following areas: hydraulics, welding, lubrication, piping, mechanical maintenance, print reading, pneumatics, power transmission, pumps, rigging (light), shop machines (operation, maintenance, use).

Ramsay Multi-Craftest
Shortened version of MainTest. Designed for use with applicants and incumbents for jobs where practical mechanical and electrical knowledge and skill are necessary parts of maintenance jobs. The test has 60 multiple-choice items and takes less than an hour to complete. Measures following areas: hydraulics & pneumatics, welding & rigging, power transmission/lubircation/mechanical, maintenance shop, machines/tools/equipment, pumps/piping/combustion, motors/control, circuits/schematics & print reading, digital electronics/power, supplies/computers & PLC/test instruments, basic AC/DC, theory power, distribution/electrical maintenance.

Ramsay PLC (Programmable Logic Controller) Test
Test of knowledge and skills in the repair and maintenance of PLCs. It can be used for job applicants and incumbents. The test has 50 multiple-choice items and takes less than two hours to complete. Measures following areas: ladder logic, I/O devices, progams and software, systems, troubleshooting.

NCS Pearson Bennet Mechanical Comprehension Test
Test to measure an applicant's aptitude to learn mechanical skills. It focuses on a working knowledge of basic mechanical operations, application of physical laws, spatial perception, and tool knowledge. It can be used for assessing job candidates for positions that require a grasp of the principles underlying the operation and repair of complex devices. This test has 68 multiple-choice items and has a time limit of 30 minutes.

Ramsay Electrical Aptitude Test
Test is a short measure of ability to learn and perform basic manufacturing and processing skills. It can be used for selection as a quick evaluation of literacy and has a time limit of 18 minutes. Measures the following areas: mathematics, electrical concepts, electrical schematic maze, process flow, electrical sequences.

Ramsay Mechanical Aptitude Test
Test is a short measure of ability to learn and perform production and maintenance job activities. It was developed to measure mechanical aptitude and can be used for selection. This test has 36 multiple-choice items and has a time limit of 20 minutes. Measures the following areas: household objects, work-production and maintenance, school-science and physics, power tools.

Ramsay Multi-Craft Aptitude Test
Test is a shirt measure of the ability to learn and perform mechanical and electrical production and maintenance job activities. It can be used for selection. This test has 36 multiple-choice items with a time limit of 20 minutes. Measures following areas: general science, power tools, hand tools, household items, electrical concepts, electrical schematic maze, process flow, signal flow, electrical sequences.

Technical Courses

CUSTOM TRAINING SOLUTIONS CAN PROVIDE ASSESSMENT TOOLS TO EVALUATE, HIRE, TRAIN, AND DEVELOP THE RIGHT PEOPLE FOR YOUR ORGANIZATION

- More Than 1000 Assessments from 50 of the World-Leading Test Publishers
- Assessments That Measure Knowledge, Skills, and Abilities
- Objective, Valid, and Reliable Assessments That Improve Organizational Performance
- Pre-Screening before Hiring or Pre-Screening Before Selection into Training Programs
- Post-Assessments to Measure Training Program Improvement and Outcomes
- Career, Promotional, and Leadership Development of Job Incumbents
- Assessments Delivered Over the Internet Anywhere (24 hours a day, 7 days a week)
- Quick Delivery of Assessment Results

PRE-EMPLOYMENT OR TRAINING/ DEVELOPMENT ASSESSMENTS FOR JOB POSITIONS

- Architecture/Engineering
- Athletics/Coaching
- Food Service Related
- Healthcare Practice
- Healthcare Support
- Information Technology
- Legal
- Maintenance/Repair
- Management
- Office/Administrative Support
- Production/Manufacturing
- Protective Service
- Office/Administration
  Sales/Customer Service

TYPES OF ASSESSMENTS

- Coaching/Leadership Development
- Job Analysis
- Professional/Management Selection
- Pre-Employment Screening
- 360 Multi-Rater Feedback
- Team/Organizational Development
- Personality/Personal Skills
- Self-Development
- Organizational
- Information Technology
- Mechanical/Technical
- Career/Vocational Exploration

LET CUSTOM TRAINING SOLUTIONS HELP YOUR ORGANIZATION:

- Establish hiring and promotion processes with demonstrated validity.
- Identify and retain top talent resulting in positive business results.

Ramsay Mobile Equipment Mechanic Test

Test is designed for use in assessing knowledge and skills of mobile equipment mechanics. It provides a broad overview of an individual's knowledge and skill related to mobile equipment maintenance. This test has 120 items and takes less than 2 hours to complete. Measure following areas: motors, pneumatics, print reading, welding, power transmission, lubrication, pumps, piping, rigging, mechanical maintenance, shop machines, tools/material/equipment, internal combustion engines, hydraulics.

Ramsay CNC Operator Test (Form CNC-3)

Test is designed to test practical skills of CNC Operators. It can be used for applicants and incumbents at the journey-level where knowledge and skill in the area of CNC operation is a necessary part of job activities. This test has 98 multiple-choice items and takes less than two hours to complete. Measures following areas: general CNC knowledge, coordinate systems, interpolation, tape code and program structure, tool compensation, m-codes, operation.

Ramsay Weldest (Form AC)

Test is for use in selecting journey-level welders who have knowledge of welding. This can be used for selection and incumbents. This test has 60 items and takes 60-75 minutes to complete. Measures following areas: print reading, welding/cutting, torch/arc, air cutting, welder maintenance & operation, tools/machine/materials/equipment, mobile equipment & rigging, production welding calculations.

Ramsay Mechanical Maintenance Trainee Test (Form UKM-1C)

Test is for use in selecting Mechanical Maintenance Trainees with one year of training or experience. This test has 60 multiple-choice items and can be completed in one hour or so. Measures following areas: pumps, maintenance, piping, shop machines, rigging, tools/material/equipment.

Ramsay Mechanical Repair Apprentice Battery of Tests (6)

Test is a basic skills test that consists of 6 separate tests combines into one test sitting. Each test is timed. It is useful for selecting individuals into maintenance technician job positions or for selecting individuals into an apprentice training program. There are 193 multiple-choice items and the battery can be completed in three and one half hours to 4 hours. Measures following areas: reading, arithmetic, measurement, reading prints & drawings, basic mechanical knowledge, troubleshooting/problem solving. This test replaces the 5 test battery above.

Ramsay Electrical Repair Apprentice Battery of Tests (5) – (Form CEB-RC)

Test is a basic skills test that consists of 5 separate tests combined into one test sitting. Each test is timed. It is useful for selecting individuals into electrical repair apprentice job positions or for selecting individuals into an electrical apprentice training program. There are 162 multiple-choice items and the battery can be completed in two and one half to three hours. Measures following areas: Reading, Arithmetic, Electrical Print Reading, Troubleshooting/Problem Solving, Basic Electricity.

Safety

Arc Flash/NFPA 70E - 4 to16 hours depending upon the client's needs
This course is designed for all personnel who work on, around or near any type of electrically energized equipment or supervise these individuals.

Topics Covered:
- Electrical hazards
- Proper electrical work practices
- Electrical safety training and procedures
- Safe installation of electrical equipment

You will be introduced to the rules and regulations as required by the OSHA Electrical Safety Related Work Practices Standard 1910.331-1910.335 as well as NFPA 70E. Designed to keep workers safe and up-to-date, this seminar provides lifesaving information. It is perfect for those who need refresher training, or those who have had little exposure to proper work practices.

Evaluating Employee Exposure (Industrial Hygiene Monitoring) - 4 hours
This course will provide the student with a basic understanding of the role of the industrial hygienist in protecting workers from occupational injury or disease.

Topics Covered:
- Understanding how agents such as chemicals, particulates, noise, heat stress, radiation and repetitive motion cause occupational injury or disease
- How best to evaluate and control those hazards.

Control Of Hazardous Energy (Lockout/Tagout) - 2 hours
This course provides information about control of hazardous energy and work under the protection of a lockout/tagout permit. The intent of the course is to provide information on lockout/tagout practices and the significance of lockout/tagout devices. The content in this course is designed to comply with the intent of the applicable regulatory requirements. Learner objectives are to: define terms commonly used in a lockout/tagout program, describe specific lockout/tagout techniques commonly used in a lockout/tagout program, and recall standard lockout/tagout procedures.

Safety For Supervisors - 4 hours
This course will focus on
- How to identify and control hazards
- Incident prevention
- OSHA's role in safety
- How to confidently address safety and health issues

In addition, we will focus on supervision's role in promoting a positive safety culture as well as proper safety inspections, incident investigations, employee engagement and properly conducting safety meetings.

Safety Courses

Hazardous Waste Operations And Emergency Response

- **General Site Worker** – This course is for general site workers (such as equipment operators, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards during hazardous waste cleanup operations. Duration: 24 or 40 hours depending on responsibilities.

- **General Site Worker Refresher** – This course is the required annual refresher for general site workers. Duration: 8 hours

- **Managers and Supervisors** – This course is required for on-site management and supervisors directly responsible for, or who supervise employees engaged in hazardous waste operations. This is a one-time course and should be taken after completion of the general site worker training. Duration: 8 hours

- **First Responder Awareness Level** - First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. Duration: 2 to 8 hours (varies by client).

- **First Responder Operations Level** - First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. Duration: 8 hours

- **Hazardous Materials Technician** - Hazardous materials technicians are individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance. Duration: 24 hours

- **On Scene Incident Commanders** – Incident commanders are individuals who will assume control of the incident scene beyond the first responder awareness or operations level. This course should be taken after completion of the general hazardous materials technician training. Duration: 2 to 8 hours (varies by client).

Developing Safety Teams – 4 hours
This course will focus on the necessary step to have an effective safety team/committee.

Topics Covered:
- how to gain management's commitment
- assembling the proper team
- identifying the purpose of the team
- measuring and communicating the team's progress
- evaluating effectiveness

Osha 10 Hour Construction Safety – 10 hours (over 2 days)
- The 10-hour Construction Safety Training Program. Our course is designed to teach an entry level construction worker about workplace safety specifically for the construction industry. Upon successful completion of the course, participants will receive an OSHA 10-Hour Construction Outreach DOL course completion card.

OSHA 30 HOUR CONSTRUCTION SAFETY – 30 hours (over 4 or 5 days)
- The OSHA 30 Hour Construction Safety Training course is a comprehensive safety program designed for anyone involved in the construction industry. Specifically devised for safety directors, foremen, and field supervisors this program provides complete information on OSHA compliance issues. Upon successful completion of the course, participants will receive an OSHA 30-Hour Construction Outreach DOL course completion card.

OSHA 10 HOUR GENERAL INDUSTRY SAFETY – 10 hours (over 2 days)
- The 10-hour General Industry Safety Training Program is intended to provide an entry level general industry worker's broad awareness on recognizing and preventing hazards on a general industry site. Students will be introduced to OSHA policies, procedures and standards as well as general industry safety and health principles and work practices covered in OSHA Act Part 1910. Special emphasis will be placed on areas most hazardous using OSHA standards as a guide. General industry workers must receive additional training, when required by OSHA standards, on specific hazards of the job. Upon successful completion of the course, participants will receive an OSHA 10-Hour General Industry Outreach DOL course completion card.

OSHA 30 HOUR GENERAL INDUSTRY SAFETY – 30 hours (over 4 or 5 days)
- OSHA 30 Hour General Industry Safety Training course is a comprehensive safety program designed for anyone involved in general industry. Specifically devised for safety directors, foremen, and field supervisors; the program provides complete information on OSHA compliance issues. OSHA recommends Outreach Training Programs as an orientation to occupational safety and health for workers covered by OSHA 29 CFR 1910. General Industry workers must receive additional training, when required by OSHA standards, on specific hazards of the job. Upon successful completion of the course, participants will receive an OSHA 30-Hour General Industry Outreach DOL course completion card.

Safety

We offer the following courses:

- Hazardous Waste Operations (HAZWOPER) - 8 and 40 hour courses
- Hazardous Materials Response (HAZMAT) - Technician and Incident Commander - 8 and 24 hour courses
- Hazard Communication (HAZCOM)
- Blood borne Pathogens
- First Aid and Cardiopulmonary Resuscitation (CPR)
- Asbestos Awareness
- Lead Awareness
- Powered Industrial Truck (Forklift) Operator
- Hearing Conservation
- OSHA 10 and 30 Hour Construction Industry Safety Training
- OSHA 10 and 30 Hour General Industry Safety
- Respiratory Protection - Air Purifying Respirators and Air Supplying Respirators
- Spill Prevention
- Bloodborne Pathogens
- Fire Extinguisher Use
- Fire Prevention
- Lockout/Tagout Affected and Authorized User
- Resource Conservation and Recovery Act
- HM 126 and HM 181 (DOT HAZMAT)
- Confined Space Entrant, Attendant, Supervisor and Rescue
- On-Site Safety Representative Training
- Excavations, Trenches and Shoring
- Scaffolding
- Fall Protection
- Traffic Control (Workzone/Flagger)
- Hoisting and Rigging
- Integrated Air Monitoring
- Direct Reading Instrumentation
- Respiratory Protection
- Indoor Air Quality
- Facility Security
- Hearing Conservation
- 10/30 Hour OSHA General Industry Safety
- Safety Management
- Safety for CEOs
- Safety for the Small Business
- Train-the-Trainer
- Safety Orientation
- How to Conduct a Tailgate Safety Meeting
- Incident Investigation
- Behavior-Based Safety Training
- OSHA Record Keeping
- Substance Abuse—Worker and Supervisor
- Workstation Evaluation
- General Ergonomics
- Back Injury Prevention

Safety Courses

Consulting Services

OSHA Citation Defense

- For clients who have been inspected and issues fines by OSHA, Cardinal is prepared to assist you in navigating the regulatory landscape. We will assist you in handling your OSHA citations, the inspection process, and abatement of cited hazards. Our professional and highly skilled experts have saved hundreds of thousands of dollars for our clients.

Arc Flash Hazard Analysis

- The National Fire Protection Association Guidelines (NFPA 70E) and CSA Z462 requires facility owners to perform an arc flash hazard analysis prior to allowing a worker to perform a task on energized equipment. The arc flash analysis identifies the presence and location of potential hazards and provides recommendations for PPE, boundaries for limited, restricted and prohibited approaches, recommendations for flash protection, and safe work practices. Our services include data collection, the arc flash hazard analysis, development of one line drawings, the labeling of applicable electrical components and the development of a comprehensive electrical safe work practices manual.

Lockout Tagout Consultation

- OSHA requires employers to implement a comprehensive lockout tagout program to protect their employees from hazardous energy in the case of unexpected startup of machinery. Cardinal is prepared to lead you through this process. Our services include the development of machine specific lockout tagout procedures, development of a written lockout tagout program, and customize training for both affected and authorized employees. Our follow up services include annual training and annual audits of machine specific procedures and authorized employees.

Integrated Air Sampling

- For clients who are required to monitor the atmosphere in which their employees are working on a routine basis or for those employees who may be exposed for a short duration to more toxic substances. Cardinal is prepared to conduct air sampling for fibers, gases, vapors, mist, dusts, bioaerosols, or fumes. Sampling schemes are adjusted to fit the needs of the client while still complying with sound industrial hygiene principles.

Employee Exposure Assessments and Personal Protective Equipment Evaluations

- Designed to assist companies in determining if the current or projected exposure to a chemical substance or physical agent (e.g. noise) is adequate or necessary based on the available toxicological or analytical data collected. Personal protective equipment evaluations assist companies in determining the correct type of chemical resistant or impermeable gloves or suits, eye protection (splash, welder's flash, laser, etc.), ionizing and non-ionizing radiation, and heat/cold stress assessments.

Health and Safety Compliance Audits

- Provide companies with representative, non-bias data and information, which can be used to focus existing and future resources towards developing a solid health and safety program. Clients may request that the entire facility is evaluated for hazards and regulatory compliance or individual assessments can be made of specific programs (e.g., confined space, lockout/tagout, respiratory protection, etc.).

Health and Safety Program Development

- Designed to assist companies with the interpretation, development, implementation and training requirements to comply with applicable OSHA, EPA, and NFPA regulations. Programs that are commonly developed and reviewed include hazard communication, confined space entry, lockout/tagout, bloodborne pathogen, fall protection, medical surveillance, respiratory protection, etc.

Occupational and Environmental Compliance Issues

- Cardinal can assist clients with the abatement and/or implementation of occupational and environmental compliance issues, including OSHA Citation Review and Assessment.

Health and Safety Training Development

- Cardinal can assist clients with the development of interactive health and safety training programs tailored to the client's needs.

Expert Witness Testimony

- Cardinal is available to assist our clients when they are in need of Expert Witness Testimony. Our staff includes certified industrial hygienists, certified safety professionals and certified hazardous materials managers. We can lend our years of experience in providing an unbiased opinion regarding health and safety matters.

Continuous Improvement

What is Lean Six Sigma? Simply put, it's a method for achieving success that can be applied in nearly any industry, from health care to manufacturing.

Lean Six Sigma focuses on developing and continuously improving processes that reduce waste, improve quality, drive customer satisfaction and positively impact the bottom line. Employees at all levels can become involved in, and benefit from, Lean Six Sigma initiatives.

Leadership Courses

Management Leadership

Operational Excellence Overview – 4 hours
This session will provide an overview of the continuous improvement process leading to operational excellence. Training will explain the processes required and how they interact to obtain expected results for your organization. Areas will include knowing customer expectations, project and resource management, continuous improvement integration and control plans.

LEAN Overview – 4 hours
This course will describe the purpose of implementing Lean methodologies in the workplace for continuous improvement and cost reduction efforts. Waste identification opportunities will be discussed to determine potential focus areas for your organization. Overall Lean concepts and principles will be reviewed to provide the knowledge and foundation the organization needs for future Lean activities focusing on waste elimination and dollar savings.

Six Sigma Overview – 4 hours
This course will provide an overview of the Six Sigma DMAIC methodology used to implement improvement projects in both manufacturing as well as transactional environments. This overview is designed for business leaders and managers who are interested in improving operational excellence. This overview will walk participants through each step in the DMAIC model.
In addition, the participant will be provided with an overview of the various practitioner levels including sponsors, master black belt, black belt, green belt, and white belt.

Quality Management System (QMS) Overview – 4 hours
This course will provide the participant with an overview of the elements of a good quality management system. The elements discussed include quality manual review, customer satisfaction assessment, management review process, quality system documentation and document control, supplier management, manufacturing and process control, corrective and preventive actions, and measurement and measurement system assessment.

Customer Expectations & Satisfaction

Voice of Customer – 8 hours
This course provides training for quality improvement managers and business leaders in tools and techniques to assess customer requirements. This activity is typically used in the Define phase of Six Sigma improvement projects but is also used by business leaders to align business strategies to targeted customer groups. The following areas will be covered in this training: customer identification, methods for obtaining customer information, translating customer information into critical customer requirements, aligning customer requirements to your business strategy, SIPOC for understanding customer-supplier relationships, kano model, overview of quality function deployment, and analytical hierarchical process (AHP) for ranking customer attributes.

Resource Management

Problem Solving Techniques – 8 hours
The purpose of this course is to illustrate a structured plan for problem solving. Various methods of problem solving will be discussed and suggested plans illustrated. Areas to be covered include brainstorming, process mapping, cause and effect matrices, ishakawa (fish bone) and FMEA (failure modes and effects analysis).

Project Identification and Selection – 8 hours
This course provides training for developing a project plan using prioritization matrices to optimize project benefits. Benefit and effort models will be illustrated and examples of scaling to fit your organizations needs demonstrated.

Delivering Successful Projects – 8 hours
Leaders will be trained on the process of successful project implementation. Areas covered include project scope development, risk mitigation analysis, resource allocation and developing project teams including team selection and meeting facilitation techniques.

Leadership Courses

Continuous Improvement - Lean

Kaizan – 4 hours
This course will train the individual on the process of a successful Kaizen or continuous improvement event. The Kaizan process will be described including preparation work and checklists, team selection, scope, facilitation and follow up. Upon completion student should be able to conduct a successful event.

5S – 4 hours
5S is the foundation of every Lean event and activity. The 5S model will be explained in detail. Included in the training will be preparation, facilitation and methods of measuring for long term success.

Set-Up Reduction & Standard Work – 4 hours
The deliverable of this training is an effective plan for any type of changeover or project activity to optimize resources. Students will be trained on categorizing internal and external time activities. In addition various tools including diagramming (mapping) and layout of the project will be illustrated for standardizing the method of operation.

Total Preventive Maintenance – 4 hours
This course will provide the tools for effective interaction of production and maintenance personnel. Illustrations of checklist utilization and communication techniques will be demonstrated during this training.

Value Stream Mapping & Visual Workplace – 4 hours
The purpose of this course is to train students on visualizing the entire organization or process. Various examples will be given and demonstrated to allow detailed breakdown of systems and processes. Discussion and recommendation of appropriate visual tools for monitoring operations will be taught as applicable.

Cycle Time and Efficiency – 4 hours
This course will teach the student the tools to improve (shorten) the time required to complete a process. Value and non-value add operations will be discussed and methods of measuring a process cycle will be reviewed. Upon completion student will be able to break down a process into various components for optimization.

Continuous Improvement - Six Sigma Statistical Tools

Statistical Process Control and Capability – 8 hours
This course will provide the student statistical knowledge to determine if a process is in control and capable of producing or delivering an acceptable output. Deliverables of this course include understanding of basic statistics, control chart analysis and process capability understanding.

Regression Modeling and ANOVA (Analysis of Variance) – 8 hours
This course will include a review of process control and capability. The student will then be trained on the process of statistical modeling and analyzing the variation of alternatives for optimum decision making. The class will include statistics and graphs for evaluation of data.
NOTE: The student must understand SPC and capability before signing up for this class.

DOE – Design of Experiment – 16 hours
This training will provide students with an application of experimental design and concepts associated with optimizing the designed output. The entire process including pre-work, facilitation and analyzing data will be explained.
NOTE: Students must have understanding of all statistical applications including Regression Modeling and ANOVA prior to enrolling in this course.

Measurements and Control Methods

QMS –Session 1 – 8 hours
This is the first of two sessions outlining the basics of a good quality management system (QMS). This course will outline the requirements for management leadership and review, development of a quality systems manual including documentation control, and supplier management.

QMS –Session 2 – 8 hours
This is the second of two sessions outlining the basics of a good quality management system (QMS). This course will outline the requirements for product realization, including process and manufacturing control, root cause and corrective/preventative action, and measurement system analysis (MSA).

Organization Measurement – 8 hours
This course will provide the student with an overview of an organizational change model and will focus on recommended metrics for measuring change and conducting statistical analysis to determine if change has had a positive or negative impact on the organization.
Employee Selection and Assessment – 8 hours
Upon completion of this course the student will have the ability to use scaled evaluation matrices for selecting and evaluating existing or potential employees. Statistical methods will also be illustrated for evaluating personnel on ability to make subjective decisions on attribute metrics.

Continuous Improvement

A3 Problem Solving – 4 hours
Who should attend: Any employee leading problem solving and process improvement teams.

This course explains the process for developing a simple, less complex structured problem solving approach for an organization. The course will review the importance of using a disciplined approach with process steps based on the Deming Model, and how to report results.

The course will also show how these simple steps can be integrated into an organization which currently uses or has used Lean Six Sigma concepts.

- A3 Thinking Overview
- A3 Process
- A3 Reporting
- Application

A3 Thinking Overview
Structured problem solving – Why it is important, and how to use it
- Deming Cycle – Plan, Do, Check, Act (PDCA)

A3 Process High Level Steps

Step #	Process Steps	Tool Utilization
1	Define Problem & Expectations	Project Charter
2	Establish a Goal or Target for Improvement	SMART Goals
3	Determine Current State - Collect and Analyze Data (Establish Baseline)	Process Mapping Takt Time and Cycle Times Pareto Charting
4	Identify Root Causes	5 Why's/Brainstorming Waste Identification/VSA Cause and Effect
5	Identify Countermeasures or Solutions for Root Causes	FMEA Brainstorming, Multi-voting Lean Concept Implementation
6	Implement Solutions Validate Results	RACI Timeline for a Pilot or Trial
7	Evaluate Results	Metrics Sub Optimization
8	Implement Methods to Sustain Results	Metrics Visual Workplace Mistake Proofing

Leadership Courses

ISO 9001 – 8 Hours – Video Conferencing Training
Who should attend: Any employee leading or participating in an organization using the ISO 9001 standard as part of quality management system.

This is recommended as two day (16 hours total) training for companies that do not have ISO certification. If company already has an ISO system and this is internal training a one day (eight hour) session is recommended.

Upon completion student should understand components of a quality management system, ISO registration clauses and steps necessary to implement and become ISO certified.

Upon completion trainee should be familiar with the following:

- Quality Management System (QMS) Principles
- ISO Clause Overview
- Gap Analysis of Organization –
  - What is current state?
  - What actions need completed for future state?

Clauses

1) Scope
2) Normative reference
3) Terms and Definitions
4) Quality Management System
5) Management Responsibility
6) Resource Management
7) Product Realization
8) Measurement, Analysis and Improvement

ISO implementation process

Lean Series Training – 4 Hours Per Topic
Who should attend: Any employee responsible for leading or participating in a Lean system deployment or to be utilized as an enhancement tool for an organization.

Lean Leader Training – 30 Hours – 4 Days
Who should attend: Any employee responsible for leading teams in Lean initiatives for process waste identification and elimination.

This course focuses on Lean process improvement techniques to identify and eliminate process waste. The entire program is tailored towards service industries, using examples from healthcare, government and education. This practical approach is easy to understand and will prepare participants for immediate application.

As tools and techniques are learned, they are applied to a simulation for hands-on experience in a classroom setting.

Who Should Attend?
Anyone working in the service industry, which is more conducive to using Lean techniques than Six Sigma methodology. Healthcare workers, government employees, higher education, banking and retail are examples of industries that provide service rather than physical products. This course will provide attendees with the basic skills and Lean tools necessary to complete a process improvement initiative, or actively participate on initiative teams.

Course Objectives: Upon completion participants will understand the following concepts:

- How to properly scope an improvement initiative
- How to map out a process and analyze for waste opportunities
- Work as an effective team member and/or team leader
- Identify and eliminate process waste
- Improve process flow
- Simplify process steps to improve efficiency and decrease defects and errors
- Workplace organization and Standard Work practices
- Utilize metrics and data to track and sustain improvements

Lean Basics – 4 hours
This course will describe the purpose of integrating Lean methodologies in the workplace for continuous improvement and cost reduction. Applicable in both manufacturing and service environments, an introduction of Lean concepts and principles will be provided to impart the knowledge that associates will need for supporting Lean activities for waste elimination and dollar savings.

Outcomes: Upon completion the trainee should understand the following:

- Lean Culture
- Lean Organizational Principles
- Introduction to Lean Concepts
  - Value Stream Analysis
  - Flow Metrics
  - Waste Identification
  - Kaizen
  - 5S
  - Standard Work
  - Pull Systems
  - Set Up Reduction
  - Total Productive Maintenance (TPM)
  - Single Piece Flow vs. Batching
  - Load Leveling (Workload Balancing)
  - Poka Yoke

Continuous Improvement

Waste Identification and Value Stream Analysis – 8 hours
The purpose of this course is to train participants in techniques to visualize an entire value stream rather than individual processes. Various process mapping examples will be provided and demonstrated to illustrate detailed breakdowns of systems and processes. This course utilizes Lean methodologies to identify and eliminate waste in the value stream, while focusing on customer requirements.

Outcomes: Upon completion participants will understand the following:
- Value Stream Analysis
  - Identifying a Value Stream
    - Process Mapping techniques
  - Measuring Value Stream
    - Cycle Time
    - Takt Time
    - Exit Rate
    - Work in Process
  - Rolled Throughput Yield
- Value & Waste Analysis
  - Value Add
  - Non Value Add
  - Non Value Add Essential or Enabling
- The 8 Wastes of LEAN
  - Transportation
  - Inventory
  - Motion
  - Under-utilization
  - Waiting
  - Over production
  - Over Processing
  - Defects
- LEAN tools for eliminating Waste in the Value Stream

Kaizen and Continuous Improvement – 4 hours
This course will train the individual on the process of a successful kaizen or continuous improvement event. The kaizen process will be described including preparation work and checklists, team selection, scope, facilitation and follow up. Upon completion student should be able to conduct a successful event with sustained results.
Outcomes: Upon completion the trainee should understand the following:
- Kaizen Definition
- Kaizen Process Overview
- Planning a Kaizen
  - Project Plan
    - Charter
    - Scope
    - Resources and team selection
    - Prep work
- Facilitating of Kaizen
  - 3-5 Day Kaizen Steps
  - Process Mapping
  - Data Collection
  - Waste Analysis
  - Brainstorming
  - Future State Development and Action Plans
- Follow up and sustaining kaizen
  - Management Involvement
  - Metrics and sustainability controls

5S – 4 hours
5S is the foundation of every Lean event and activity. The 5S model will be explained in detail. Included in the training will be preparation, facilitation and methods of measuring for long term success.

Outcomes: Upon completion the trainee should understand the following:
- Lean Overview
- Benefits of 5S
- 5S Process
  1. Sort
  2. Set in Order
  3. Shine
  4. Standardize
  5. Sustain

Set-Up Reduction – 4 hours
The deliverable of this training is an effective plan for any type of changeover or project activity to optimize resources. Students will be trained on categorizing internal and external time activities. In addition various tools including diagramming (mapping) and layout of the project will be illustrated for standardizing the method of operation. Various examples of utilizing standard work and visuals will be illustrated for optimizing an effective set up reduction system.

Outcomes: Upon completion the trainee should understand the following:
- Lean Overview
- Benefits of Set-up Reduction
- Set-Up Reduction Process
  - Identify Activities
  - Categorize Activities – Internal and External
  - Evaluate Internal Activities – move to External
  - Streamline Internal Activities

Total Productive Maintenance (TPM) – 4 hours
This course will provide the tools for introducing student to the various stages of total productive maintenance. Various TPM concepts and measuring techniques will be described. Various examples of utilizing standard work and visuals will be illustrated for optimizing an effective TPM system.

Outcomes: Upon completion the trainee should understand the following:
- Lean Overview
- TPM Concepts
- TPM Steps
- Autonomous Maintenance

Replenishment Systems – 4 hours

This course will provide formulas and training for determining optimum stocking for various items including any type of repetitive stocking (food, equipment, supplies etc.) Safety stock, minimum and maximum stock and order quantities will be formulated and discussed.

Outcomes: Upon completion the trainee should understand the following:
- Lean Overview
- Pull Concepts
- Kanban
- Supermarkets
- Stocking Calculations
    - Maximum Inventory
    - Minimum Inventory
    - Safety Stock
    - Ordering Triggers

How to Champion a Lean Six Sigma Organization – 4 Hours
20 Total Session
Who should attend: Any Business Leader responsible for deploying or directing the Lean Six Sigma (LSS) business model for their organization.

Session 1: The role of leadership in a Lean Six Sigma Organization
This course provides an overview of lean organizational structure and the role of leadership in managing lean operations. Participants will learn the keys to successful deployment of lean concepts and how to champion and sponsor lean efforts for maximum results by utilizing metrics that cascade from organizational goals to front line improvement efforts.

Objectives: Upon completion participants will understand the follow following:
- The Lean & Six Sigma Culture
- The Role of Leadership
- Integrating Lean and Six Sigma
    - Process Steps and Supporting Structure
- Change Management
    - Identification
    - Communication Plan
- Deployment
    - Process & Timeline
- Sustainment
    - Establishing Measurements
    - Cascading Metrics Across Organizational Levels
    - Accountability

Session 2: Understand Your Customers and Optimize Resources (Project Selection and Identification) – 4 hours
This course provides training for quality improvement managers and business leaders in tools and techniques to identify and assess customer requirements. The following areas will be covered in this training: customer identification, methods for obtaining customer information, translating customer information into critical customer requirements & process deliverables.

Objectives: Upon completion participants will understand the following:
- Customer Identification
    - Internal
    - External
- Obtaining Customer Data
    - Proactive
    - Reactive
- Customer Data Collection Techniques
    - Surveys
    - Focus Groups
- Prioritizing and translating Customer Data
- Decision Matrices – AHP and Pugh

Session 2A: Optimizing Resources - Project Identification and Selection – 4 hours
This course provides instruction on developing an organizational project portfolio through the use of prioritization matrices and resource allocation. Benefit and effort models will be illustrated with examples of scaling to fit your organizational needs.

Objectives: Upon completion participants will understand the following:
- Aligning Improvement Efforts with Organizational Strategies
    - Establishing a System Aim and Operating Principles
- Developing and Utilizing SMART Goals
- Identifying Value Opportunities
- Screening and prioritizing Opportunities
    - Developing Decision Criteria
        - Rating Scales
    - Decision Matrices
        - Benefit/Effort Matrix

Session 3: Delivering Successful Projects with Effective Work Teams – 4 hours
Leaders will be trained on the keys to successful project implementation. Areas covered include project scope development, risk mitigation analysis, resource allocation and developing project teams, including team selection and meeting facilitation techniques.

Objectives: Upon completion participants will understand the following:
- Team resource alignment
- Project plan development
- Project team launch
- Facilitation of project teams

Session 4: Systems Alignment to Sustain and Measure Results – 4 hours
Leaders will be trained how to successfully monitor and control of operations to sustain project gains. Areas covered include implementing control metrics, tracking and following up to insure success.

Objectives: Upon completion participants will understand the following:
- Importance of Poke Yoke (mistake proofing) Methods
- Importance of Visual Controls for Sustaining Results
- Importance of a Quality and/or Operations Management System
- Incorporating ISO 9000 Techniques
- Incorporating Metrics that Align with Organization's Vision and Goal
- Developing a Timeline and Frequency for Monitoring Specific Processes

Continuous Improvement

Statistical Process Control and Capability – 8 Hours
Who should attend: Any employee conducting or responsible for process control and process capability studies

This course will introduce statistical concepts, enabling students to determine if a process is in control and capable of producing or delivering an acceptable product or output.

Course Objectives: Trainee should have an understanding and application of the following concepts:

Variation
- Common Cause
- Special Cause

Sampling
- Sampling vs. Population

Measurement Systems Analysis
- Overview of Gage R and R
- Gage Discrimination

Data Analysis
- Data Types

Pareto Charts
- Histograms

Basic statistics
- Minimum
- Maximum
- Average
- Range
- Median
- Standard Deviation

Control Charting
- Run Charts
- Control Charts
- Introduction to Normal Distribution

Process Capability
- Sigma Quality Level Definition

Cp and Cpk definitions and calculations
- Determining DPMO (Defects per Million Opportunities)

Lean Six Sigma Yellow Belt Training – 16 Hours
Who should attend: Any employee responsible for actively participating in basic problem solving initiatives or continuous improvement events.

This course focuses on business process improvement utilizing Lean Six Sigma methodology throughout each phase of the model. The 10 step model includes: voice of customer, goal setting and project alignment, team formation, process overview, data collection, establishing baseline metrics, identifying and prioritizing problems, implementing optimum solutions, piloting and control plans.

Course Objectives: Upon completion participants will understand the following concepts:
- What is important to the customer
- Organization resource optimization
- Project team development and facilitation
- Sampling and data collection
- Basic problem solving techniques for root cause analysis
- Lean – waste identification and solutions
- Tracking metrics

Leadership Courses

Train the Trainer
Who should attend: Any employee conducting or preparing one on one or class room training of various topics

This training provides student basic concepts for conducting various trainings including:
- Identifying the Trainer's Role
- Preparing for Training
  - Materials
    - Use of Visuals
  - Logistics
  - Instructor
- Training Facilitation Techniques
  - Classroom
- Components of Developing and Writing Work Instructions or Standard Operating Procedures
- On the Job Training Techniques
  - Focus on Four Step Training Method
- A simulation is given for student to demonstrate the following:
  Prepare for Training
  Write Work Instructions
  Conduct Training

Course Objectives: Upon completion trainee should be familiar with the process steps required to do the following:
- Prepare a Training Presentation
- Facilitate Training
- Prepare Work Instruction Documents

Leadership Courses

Lean Six Sigma Green Belt Training for the Public Sector

40 Hours (1 day/week for 5 weeks)

Who should attend: Public sector employees responsible for leading problem solving and continuous improvement teams for an agency.

Course Objective: Train participants on Lean and Six Sigma problem solving concepts and leadership development (process and people skills development). Trainees will be able to facilitate Lean Six Sigma Teams utilizing the following concepts:

- Lean 6 Sigma Overview
- Change Management
- The 4 Voices – Voice of the Customer, Voice of the Business, Voice of the Process, Voice of the Employees
- Organization Resource Optimization
  - Identify Areas of Improvement, Aligned with Organizational
  - Strategic Goals
- Project Launch Tools
  - Project Charter
  - SIPOC
  - Team Management and Meeting Facilitation
- Process Mapping Techniques
  - Types and Uses of Process Maps
- Sampling and Data Collection
  - Variation
  - Data types
  - Basic Statistics
  - Measurement Systems Analysis
  - Process Flow Metrics
- Fundamental SPC concepts
  - Process Control
  - Process Capability
- Problem solving techniques for root cause analysis
  - A3 Problem Process
  - Value Stream Analysis & Waste Identification
- Solutions Development and Selection
  - FMEA
  - Lean Tools
- Implementing and Validating Results
  - Hypothesis Testing
- Tracking Metrics
  - Operations Management System (OMS) Principles

Participants must come into this course with a clearly defined problem statement. This will result in a project that is completed through the class.

Continuous Improvement

You can let a black belt go it alone,
Or you can build your Lean culture from the ground up.

LEAN 6 QuALLITY

SIPOC for Success™

With Lean 6 QuALLity, you can engage and empower your people so that they can ALL make a difference in deploying and sustaining a continuous improvement culture.

Lean 6 QuALLity Computer Based Competency Training rapidly brings your organization on board at the base employee level with Lean 6 Sigma efforts to support successful results. Employees can deploy techniques at the front-line level and provide benefits using continuous improvement. Quick training of the majority of employees promotes and sustains the culture change required for a successful program, even if some of the black belts leave the organization.

Lean 6 QuALLity Training can be done for a large number of employees simultaneously, as it does not require back-filling positions, the use of master black belt trainers, training rooms and other resources, and/or travel.

- **Lean Six Sigma training needing only a computer and internet connection**
- **Twelve modules that teach employees Lean process techniques and the Six Sigma DMAIC methodology**
- **Self-paced training that can be completed at each individual's rate of leaning and available time**
- **Provides employee competency with problem solving skills, process waste identification, root cause analysis, process improvement techniques, and results sustainment**
- **Includes training completion tracking and progress reports per each employee**

Lean 6 QuALLity

Computer Based Competency Training Overview

Module Number	Title	Topics & Tools
Module 1	Lean Six Signma Overview	Overview of Business Improvement & Problems Solving Concepts - A3, Six Sigma & Lean - 10 Step Process Improvement Model - Basis of Course
Module 2	Know What Your Customers Expect	Customer Expectations - Defining Internal and External Customer - Obtaining Customer Information - Analyzing Customer Requirements - Prioritizing Customer Expectations
Module 3	Identify and Prioritize Improvement Opportunities	Identify improvement Areas (Project Selection) - Establish Operating or Guiding Principles - Establish SMART Goals and Metrics that Incorporate Principles - Develop a List of Improvement Opportunities - Prioritize Opportunities - Select and Assign Projects
Module 4	Develop the Project Scope & Assemble the Team	Scope the Project and Assemble the Project Team - Develop a Project Plan - Formulate a High-Level SIPOC - Select the Appropriate Team Members - Team Dynamics & Team Formation
Module 5	Visualize the Process	Visualize the Process - Purpose of Process Mapping & Types of Process Maps
Module 6	Measuring the Process or Value Stream	Measuring the Process (Value Stream) - Variation - Common Cause & Special Cause - Measurement Systems - Sampling & Data Collection
Module 7	Capturing Baseline Metrics	Capturing the Process Baseline - Basic Statistics - Process Control & Process Capability - DPMO & Sigma a Quality Level - Process Flow Metrics
Module 8	Problem Solving Root Causes and Solutions Development	Problem Solving Root Cause - Prioritization Tools - Problem Solving Tools and Methodologies - Tracking and Communication Results
Module 9	Basic Lean Tools	Basic Lean Tools - Lean Principles and Concepts - Waste Identification and Elimination - Gemba Walks
Module 10	Lean Solutions Part 1	Lean Solutions - 5S - The Visual Workplace - Process Load Leveling
Module 11	Lean Solutions Part 2	Lean Solutions - Set Up Reduction (SMED) - Total Productive Maintenance - Replenishment Pull, JIT, One Piece Work Flow - Standard Work
Module 12	Pilot, Validate and Sustain Solutions	Pilot, Validate & Sustain Solutions - Conducting Pilot Trials - Validating Solutions for Optimal Success - Control Plans for Sustaining Results

Continuous Improvement

LEAN 6 QUALITY
SIPOC for Success™

SIPOC for Success™

Our model is designed to engage and empower your people so that they can all make a difference in deploying and sustaining a continuous improvement culture.

Deploy and sustain a continuous improvement culture that engages and empowers your people so that they can ALL make a difference.

S	I	P	O	C
Supplier	Input	Process	Output	Customer
	Change and Deployment Strategy • Executive Training Series	EXPLAIN	Burning Platform - "WHY" - established & communicated	
LEAN 6 QUALITY SIPOC for Success™ with your Leadership Team	Training Plan • GB/BB • Competency Modules	TRAIN	Lean 6 Trained Organization	External & Internal Customers
	Lean 6 Process Improvement Teams • Kaizen Workshop • Competency Modules	INGRAIN	Lean 6 Foundation & Culture Established	
	Lean 6 Concepts Continually Reinforced • Competency Modules • Operations Management Systems	SUSTAIN	Lean is Routine	

EXPLAIN

Executive Leadership Training: How to Champion a Lean Six Sigma Organization

- Session 1: The Role of Leadership in a Lean Six Sigma Organization
- Session 2: Understand Your Customers and Align Resources
- 2A: Optimize Resource Utilization - Project Identification and Selection
- Session 3: Deliver Successful Projects with Effective Work Teams
- Session 4: Systems Alignment to Sustain and Measure Results

TRAIN

Learn Six Sigma Green Belt / Black Belt Training

- Train participants on Lean and Six Sigma problem solving concepts, Team Management and Leadership Skills. Trainees will be able to facilitate Lean Six Sigma Teams utilizing Lean Six Sigma methodology.

Lean Six Sigma Competency Training Modules

- Quickly provide knowledge of basic tools and concepts to all employee - expedites deployment.

INGRAIN

Lean Six Sigma Competency Training Modules

- Continual competency reinforcements to maintain knowledge base

Lean Series Kaizen Workshop

- Waste Identification & Value Stream Analysis, 5S, Set Up Reduction, Tota Productive Maintenance, Replenishment Pull Systems
- Statistical Process Control
- A3 Problem Solving

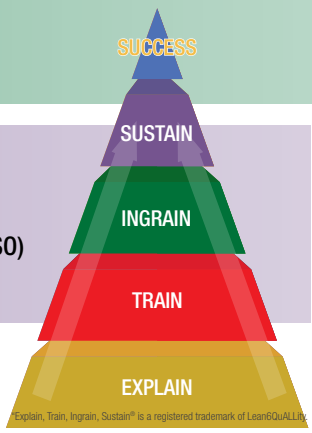
SUSTAIN

Lean Six Sigma Competency Training Modules

- Onboarding - new hire orientation.
- Continual competency reinforcements to maintain knowledge base.

Lean Six Sigma integrated with an Operations Management System (ISO)

- Executive Session 4: Systems Alignment to Sustain and Measure Results
- ISO Training - Optional



*Explain, Train, Ingrain, Sustain® is a registered trademark of Lean6QuALLity.

Lean 6 QuALLity

Green Belt Hybrid Training

The course begins with a 12-module online class that will teach you about the Lean Process techniques and the Six Sigma DMAIC methodology. Each module will take roughly 40 minutes to complete. The first two weeks of the course are dedicated to the student completing this portion on their own. This will result in a yellow belt certification. Modules are listed below:

- Lean Six Sigma Overview
- Know What Your Customers Expect
- Identify and Prioritize Improvement Opportunities
- Develop the Project Scope and Assemble Team
- Visualize the Process
- Measuring the Process or Value Stream
- Capturing Baseline Metrics
- Problem Solving Root Causes and Solutions Development
- Basic Lean Tools
- Lean Solutions Part 1
- Lean Solutions Part 2
- Pilot, Validate, and Sustain Solutions

The next step is a two-hour web call facilitated by the master black belt instructor so that each student's project can be identified and talked through.

Finally, there will be six, four-hour weekly sessions where you will work on your projects and build upon your yellow belt skills and complete your Green Belt Certification.

Advanced Manufacturing Consortium

Green Belt Hybrid Training Curriculum

LEAN 6 QUALLITY

Section	*Hours*	*Type of Session*		*Project Topic*	*Notes*
Phase 1	16	Web		LSS - Yellow Belt Completion	Complete 12 Module Computer Based Training (CBT)
					Tests must be completed and results tracked by MBB instructors

Project should be identified for Green Belt Student prior to attending Working Sessions

Section	*Hours*	*Type of Session*	*Training Topic (2-3 Hours)*	*Mentoring Topic (1 -2 Hours)*	*Notes*	*Assignment*
Working Session	2	Web Call	Competency Project Selected	Identify Project	MBB's review projects with each participant to ensure proper type, scope, etc.	Select Project
Working Session	4	Classroom 1	Leadership - Team Management and Running Effective Meetings A3 AHP	Prepare for Team Launch Complete A3 Template to be used for scheduled report outs.	Walk participants through charter and SIPOC creation. Prepare participants for team launch. Complete an initial A3 - to be updated for report-outs in classroom Session 2.	Project Charter SIPOC Team Launch A3 Report Out
Working Session	4	Classroom 2	Process Mapping Detail Baseline Data MSA	Detailed Process Mapping Capturing Baseline Metrics	Walk participants through process mapping examples and help them select the proper map type for their project. Identify baseline or develop a data collection plan to capture it.	Process Map Data Collection Plan
Working Session	4	Classroom 3	Pareto Histogram Pie Charts Process Control Process Capability (Takt Time)	Using graphs to display and analyze data. When and how to use SPC. Process capability Analysis.	Prioritize focus through data anlaytics.	Data Analysis
Working Session	4	Classroom 4	Brainstorming Affinitizing Gemba Walks Work Value Analysis	Prepare for root cause identification Detailed Value Stream Analysis	Walk participants thorugh Value Stream Analysis. Participants begin to identify opportunities for improvement in their project value stream	Waste Analysis Causes Identified
Working Session	4	Classroom 5	(Cause and Effect Matrix) FMEA Kaizen and Lean Tools	Identify Solutions	Apply potential solutions to improve the process	Application of solution tools
Working Session	4	Classroom 6	Pilot & Validate Hypothesis Testing Strategic Alignment Metrics GB EXAM	Prepare for implementing and sustaining solutions	Prepare participants to work with their teams to identify solutions, pilot and validate solutions, and put controls in place for sustaining results. Provide certifications.	Solutions and Plan to Monitor (metrics)

Transportation Safety

Types of Motor Carriers

The purpose of this course is to identify whether your company is considered a motor carrier and if so, which regulations you must follow. The US Department of Transportation (USDOT) under the Federal Highway Administration (FHWA) regulates interstate motor carriers. States such as Ohio, through the Public Utilities Commission (PUCO) also regulates carriers.

Learning points:

- What is a motor carrier?
- Which states identify motor carriers differently than the FHWA?
- What is a commercial motor vehicle?
- Private, for hire, interstate, intrastate and/or farm?
- What driver regulation must be followed?

Registration Requirements

The purpose of this course is to simplify the registration process allowing you to register without the need for a 3rd party or consultant. Discussion on both online and off-line registration will take place.

Learning points:

- Federal motor carrier registration
- State registration requirements
- Insurance requirements
- Licensing and permitting
- Fuel tax
- How long will it take to become a motor carrier?

New Entrant Safety Assurance Program

Completion of this course will give you a better understanding of whether your company is required to enter the New Entrant Safety Assurance Program and subsequent audit.

Learning points

- Is the new entrant audit required?
- Who will conduct the audit?
- When will the audit take place?
- What events trigger an audit failure?
- What happens if I fail the audit?

Audit preparation

Completion of this course will give you an understanding of DOT audits (Compliance Review or CR) and help you to prepare for any type of audit.

Learning points

- Comprehensive or focused audit
- General motor carrier documentation
- Driver qualification files
- Controlled substance and alcohol documentation
- Hours of service documentation
- Hazardous materials documentation
- Vehicle maintenance documentation

Driver Qualification Files

This course is designed to help you manage driver qualification files.

Learning points

- DQ file requirements
- Driver employment application
- Personnel file requirements
- Part-time drivers used by other carriers
- Part-time drivers with other jobs
- Not medically qualified drivers
- Disqualified drivers

Driver Qualification

Completion of this course will allow you to identify driver qualifications, disqualifications, prohibitions and driver credentials.

Learning points

- Driver credentials
- Medical qualification requirements
- Controlled substance and alcohol documentation
- Familiarization with the Federal Motor Carrier Safety Regulations (FMCSR)
- Minimum driving records
- Records retention

Controlled Substance and Alcohol regulations

This course will help simplify the complex Controlled Substance and Alcohol regulations.

Learning points

- Pre-Employment testing requirements
- Random testing requirements
- Post-Accident testing requirements
- Reasonable Suspicion testing requirements
- Return-to-Duty testing requirements
- Follow-up testing requirements
- EAP
- Records retention

Vehicle Maintenance requirements

This course will help you identify which maintenance regulations you are required to comply with, as well as how to remain compliant. Example documentation templates will be provided.

Learning points

- Maintenance file requirements
- Periodic (annual) inspections
- Systematic periodic maintenance program requirements
- Daily inspections (pre-trip / post-trip) requirements
- Assurances against Out of Service (OOS) violations
- Records retention

Transportation Safety

Compliance, Safety and Accountability (CSA)

This course will help you make sense of CSA and the effects of compliance and non-compliance with the regulations. A table or laptop is suggested for this course.

Learning points

- What is CSA
- Safety measurement system (SMS)
- Where does the data originate
- Who can see my data
- Time and severity weighting
- Intervention
- Removing yourself from intervention
- Peer ranking
- CSA resources

Hours of Service

This course will strengthen your knowledge of the hours of service regulations. Completion of this course will solidify your ability to audit daily logs, as well as, giving you the ability to mentor drivers regarding errors.

Learning Points

- Full understanding of Part 395 of the FMCSR
- EOBR's and their December 2017 mandate
- Log Auditing
    - o Form and Manner
    - o Point to Point speed
    - o 11 and 14 hour rules
    - o Restart provision
- Violation Policies

Agriculture exemption

This course will identify which regulations a farm operation may qualify for.

- Mileage radius exemption
- Licensing and permitting
- For hire or private
- Commodity specific exemptions

Business & Professional Development

DDI®
COMPETITIVE ADVANTAGE. REALIZED.

A Work in Progress

DDI's Global Leadership Forecast 2008-2009 survey reveals 5 major failings of current leadership development efforts:

1. Leaders are not getting the right development.
2. Poor execution is undermining leadership development success.
3. Succession management is narrowly focused and incomplete.
4. Multinational leaders aren't getting the development and support they need.
5. HR and executives are still not on the same page.

The Leadership Culture

"A culture that focuses on people and their development is key to consistently delivering outstanding business results."

Does this statement remind you of your organization's current cultural environment or the culture you want to create?

CTS has partnered with DDI and certified instructors to deliver high quality leadership and customer service modules to deliver to your workforce. Each session can be customized and specifically geared to provide solutions to meet your workforce where they are at. Front-line supervisors, team leaders, managers, directors and even senior executives will benefit from these sessions.

Get ready to close the leadership gap. Leadership development, after all, is a proven necessity for organizations if they are to have the leadership capability they need.

Video Job Aid

Workforce Development Video Media:
Custom Training Solutions offers services in designing and creating job-learning aids that helps employees execute their jobs efficiently. These workforce development media can take several forms such as stand-alone videos or slide presentations with voiceover narratives. Upon reviewing the materials, workers can go to the job/task and perform that assignment. Also available are student assessments that can be built into the job-learning aids to measure individual learning and application. Contact CTS for further information.

DDI (Development Dimensions International) is one of our leading partners in offering solutions for your organization's hiring process, building leadership or workforce skills, providing extraordinary customer service, or improving the management of your people's day-to-day performance. We offer a blend of learning options that include our certified DDI instructors in your classroom or ours, web-based, virtual classrooms, and electronic performance support. DDI's solutions are built around compentencies and are designed to give people at all levels the skills needed to be increasingly effective in their jobs. Several of the courses we provide with DDI are approved and offer CEUs in cooperation with Society for Human Resource Management.

Courses and offerings we can provide under the DDI partnership and with our DDI certified instructors:

Supervisors & Managers

Leadership & Influence

Some people are born leaders. Others develop the skillset when facing a crisis that demands action or after being placed in a role where leadership is required for success. Whether born or made, leaders are often forced to make tough decisions and direct others through challenging situations.

Gaining knowledge and understanding of leadership concepts and techniques helps leaders build confidence in their abilities. This workshop focuses on just that, helping leaders to:

- Understand different styles including directing, participating and delegating and how to adapt leadership style to best fit the people you lead
- Explore key leadership theories and the concept of transformational leadership
- Conduct a personal inventory, establish goals and create and action plan

Manager Management

Perhaps the only thing more challenging than leading and motivating a team is when that team is responsible for leading and motivating employees of their own. Managing a group of managers requires the ability to guide and empower, while still holding your team accountable for their employees' performance and results.

Whether new to managing or seasoned professionals, workshop attendees will learn strategies they can start applying right away, including:

- Onboarding and orientation for new managers
- Techniques for successful coaching and mentoring
- Tools to measure and evaluate performance
- How to help managers communicate with their employees

Business & Professional Development Courses

Supervising Others

Working as supervisor requires excellent time management and self-motivation. Handling day-to-day tasks and projects can be difficult enough, but add in overseeing a team, solving problems and troubleshooting, and things can quickly become overwhelming.

With the right approach, supervisors can strike a balance between completing tasks and setting a shining example for team members to follow. This workshop will help attendees become more efficient and effective at:

- Clearly defining requirements and expectations
- Setting SMART goals for themselves and their team
- Appropriate delegation
- Providing constructive feedback to their staff
- Time-management and conflict resolution

Screening, Testing, and Assessment for Individuals

- Career Batteries Testing
- Sales Insight Inventory
- DDI Skills Tests
- Phone-Based Assessments
- Manufacturing Simulations
- Leader Career Battery
- Leadership Insight Inventory
- Assessing Talent: People Leader (With Sales, Service & Manufacturing)
- Assessing Talent: Sales Professional
- Fundamentals of Leadership: (With Sales, Service, & Manufacturing)

Training & Development for Today's Workforce

Personal Effectiveness

- Adapting to Change
- Building Trust
- Communicating and Listening
- Feedback Fundamentals
- Influencing Others
- Personal Empowerment - Taking Initiative
- Working Through Conflict

Group Effectiveness

- Contributing to Meeting Success
- Fast Start for Teams
- Optimizing Team Performance
- Supporting Others
- Training Others
- Valuing Differences
- Working as a Team

Leadership Development

- Achieving Your Leadership Potential
- Adaptive Leadership
- Boosting Business Results
- Building an Environment of Trust
- Building Winning Partnerships
- Coaching for Improvement
- Coaching for Success
- Creating a Service Culture: The Service

Leader's Role

- Delegating for Results
- Developing Others
- Getting Started as a New Leader
- Influential Leadership
- Launching a Successful Team
- Leadership: Facilitating Change
- Resolving Conflict
- Retaining Talent
- Supporting Leadership Development
- Building Advanced Coaching Skills
- Driving Performance and Accountability
- Leading in a Healthcare Environment
- Leading Rapid Change
- Taking Action to Boost Business Results

Essential Skills of Leadership

Learn the skills required to manage the individual while also leading the team. This program focuses on three critical management skills and establishes a methodology for productive interactions. One of two basic building block workshops, it builds a foundation that enables leaders to manage their team toward a shared goal: achieving the organization's strategic objectives.

Essential Skills of Communicating

Even experienced managers can improve their messages by making them clear, well-organized and aimed at the needs and interests of the listener. This module focuses on improving relations with team members and increasing productivity by creating a climate of open communication and understanding communication as a two-way process. This is one of two basic building block workshops.

Managing Complaints

Managers acquire the tools necessary to approach complaints in a way that is supportive of employee and team goals. Understand why dealing with team member complaints is important, how the effective team leader manages complaints, how to use listening skills to manage complaints, and how to ask questions.

Business & Professional Development

Resolving Conflicts
Acquire the tools needed to recognize conflict and deal with it quickly and effectively. By understanding the signs of conflict and getting to the root cause, managers can eliminate the issue and minimize the impact. Facing these conflicts head-on allows the manager to preserve the integrity of the team and to demonstrate a commitment to individual
performance and growth.

Supporting Change
Supporting change helps managers learn to understand and to interpret change. By understanding it, managers can more clearly communicate change to their team, helping to reduce misunderstanding and anxiety. Clear communication also helps the change initiative gain acceptance more quickly thereby minimizing lost productivity and decreased performance.

Effective Discipline
Effectively addressing problem behavior requires working to preserve an individual's self-respect and encouraging the best kind of discipline–self-discipline. This workshop provides tools for successfully handling one of the most difficult functions of the manager/supervisor and includes role plays of discipline situations selected by the participants.

Improving Work Habits
Poor work habits are a major cause of disciplinary action. Addressing absenteeism, language issues, and dress and grooming habits can be a difficult but necessary part of leading a team and requires careful attention and skill. This module provides the tools necessary to recognize and to address poor work habits–even those of a team member who may be successful in his or her job.

Communicating Up
The ability of managers to effectively communicate up the line to their managers affects team member retention, overall productivity and even profitability. An important part of that communication is mutual agreement on what needs to be done, why it's important, and when it will be accomplished. That fundamental agreement is what communicating up helps managers to achieve.

Coaching Job Skills
Spark commitment to your team's success by utilizing effective coaching skills. In this workshop, you will learn the importance of carefully planning one-on-one discussions to gain each individual's commitment to achieving results. You will also learn the coaching process of observation, analysis and communication and how to implement it.

Providing Performance Feedback
A performance assessment is not a disciplinary session but rather an opportunity to build a team member's self-esteem by acknowledging what he/she is doing well. It is also a chance to eliminate any performance errors at an early stage. Learn how evaluation is done by the experts–establishing performance standards, soliciting the team member's evaluation, and summarizing a credible evaluation.

Emotionally Intelligent Workforce
The ability of the individual and organization as a whole to recognize and manage emotions in ourselves and others is essential for the organization to be adaptable. Emotional-social intelligence is a cross-section of interrelated emotional and social competencies and skills that determine how well we understand and express ourselves, understand and relate with others, and cope with daily demands. Emotional intelligence (EQ) is measurable and can be developed. This seminar is for trainers, mentors, counselors, managers and supervisors interested in behavior-based training and leadership.

Leading Organizational Change
Leadership acts as change agents as well as enlists the help of carefully selected volunteers to be part of a change team. These internal change agents are the ones who ultimately lead a change project or businesswide initiative by defining, researching, planning, and building business support. Numerous driving forces motivate the behavior of change agents. An agent who is constantly adapting to new practices is often motivated from a desire to make change. Change agents must have the conviction to state the facts based on data, even if the consequences are associated with unpleasant outcomes.

Controlling Stress in the Workplace
Stress is an inevitable part of life; however, employees suffering from stress are not as productive as they could be, nor are they as healthy. For the well-being of your employees, the workplace should be as free of stress and of fear as possible. In this workshop, you will learn to identify and reduce stress-inducing situations while helping employees to manage their stress levels and become more productive.

Employee Engagement
High levels of employee engagement correlate positively to improve the individual, group and corporate performance in areas such as retention, turnover, productivity, customer service and loyalty. This course will give those leaders the tools necessary to enable staff in the supervisory and leadership roles the ability to motivate their staff in day-to-day operations. The outcome of this course will show the benefits of positive relationships and the impact on motivation within your organization.

Retaining Winning Talent
As the American workforce changes in age, ethnic makeup, lifestyle and motivation, the agreement between the employee and the employer is also changing. It is no longer an exchange of loyalty for security, but rather a multi-faceted give-and-take between employee and employer.

Customer Oriented Selling
Customer oriented selling techniques teach the salesperson to understand the customer's perspective, focus on customer objectives, and guide the sales process toward a logical win-win result. Customer oriented selling sales training is based on a foundation in "consultative" and "strategic" selling with a strong pre-call planning process.

Business & Professional Development Courses

Conflict Management
Acquire the tools needed to identify conflict and use an effective model to resolve it. Conflict is basic human nature. Persistent, unresolved conflicts can be costly to the organization in lost work productivity and to individuals in decreased effectiveness and unsatisfying relationships. Learn characteristics of conflict, signs of conflict, and common sources of conflict along with different styles of, and useful behaviors in, dealing with conflict.

Effective Communication
Communication is the imparting or conveying of knowledge or information. It is a two-part activity involving listening as well as speaking with its object not so much the exchange of words as it is the exchange, of ideas. In this module, participants will learn about the many ways we communicate and how to use them most effectively.

Practical Project Management
Practical project management is a three-day workshop for professionals who are new to managing projects or experienced managers who wish to review and reinforce best practices in project management. It offers a foundation in the rationale, tools, and techniques for each of the phases of the project management life cycle as defined by the
Project Management Institute's Guide to the Project Management Body of Knowledge (PMBOK® Guide). In addition, this program provides an overview of the "people-side" skills so critical for project success: leading and motivating people, communication and managing performance. Participants will learn project management skills through case studies, hands-on exercises and practical application to their own current real-life projects.

Kepner-Tregoe Problem Solving And Decision Making (PSDM)
This workshop teaches a logical process approach for solving complex problems, making good decisions, and analyzing plans for potential risks and opportunities. Participants learn to use the following tools; situation appraisal, problem analysis, decision analysis, and potential problem and potential opportunity analysis. Certified instructors use business related examples and case studies to make learning stick. These timetested, flexible business tools can be applied across disciplines to achieve excellent professional results. Target audience includes all levels of management, professional staff and anyone else who participates in problem solving and decision making.

Career Development

Creative Problem Solving
From psychologists to executives and everyone in between, successful problem solvers have at least one thing in common: they use a similar process to identify and implement solutions. This process can be used on problems of any size, no matter the source of the issue.

This workshop helps develop key skills used in creative problem solving such as brainstorming, information gathering and data analysis. Participants will walk away with a clear understanding of the problem solving process, as well as tools they can use every day, including:

- How to define the problem
- Identifying key questions and information to gather
- Brainstorming, adapting and evaluating solutions
- Assigning tasks and gathering resources needed to implement solutions

Personal Branding
Thanks to advances in social media and the continued evolution of the workplace, professionals have more opportunity than ever before to create and develop their personal brand. Controlling how you present yourself, and how others see you, can provide a host of personal and professional benefits—when it's done correctly.

Successful personal branding goes much deeper than appearance. It requires identifying what sets you apart, understanding how others view you, and creating a plan for presenting your strengths and skills to the world. This workshop will teach attendees how to:

- Define, control and advance an image
- Use social media effectively and appropriately
- Develop a professional appearance
- Manage a personal brand during a crisis

Project Management
Whether large or small, successful projects don't just happen. They require careful planning and thoughtful oversight—otherwise known as project management. After learning the key principles and techniques, as well as how to apply them, project management methodology can be used on projects of nearly any type or size.

While the workshop focuses on project management, the skills gained can be applied toward individual tasks as well, making this beneficial for nearly any professional. Key takeaways include:

- How to perform a needs assessment and identify goals and deliverables
- Creating risk management and communication plans
- Estimating time, costs and resources to build a project schedule
- Using planning tools such as Gantt charts, network diagrams and RACI charts
- Monitoring and maintaining projects

Business & Professional Development

Human Resources

Employee Onboarding

Recruiting, hiring and training employees is one of the biggest investments a business can make. Doesn't it make sense to protect that investment? Employee onboarding is one of the best ways to welcome new employees and successfully integrate them into your organization.

Onboarding does more than make people feel good. It achieves measurable results, including lower turnover, higher employee satisfaction and lower ongoing training costs.

Whether you need to refine an existing onboarding program or create one from scratch, this workshop will help you develop a successful process that is beneficial for the company and employees. You'll learn how to:

- Engage and follow-up with employees
- Create realistic expectations
- Prepare an effective onboarding program

Generation Gaps

Each generation brings its own experience, approach and perspectives to the workplace. While this can create a dynamic and exciting environment, it can also contribute to frustration and misconceptions. Understanding different generations, along with what motivates them, is key to bringing groups together.

This workshop will help you bridge the gap between older and younger workers, creating a team that values the input and viewpoints of all members. Whether you attend as a manager or coworker, you'll gain a greater understanding of:

- Definitions of and differences between the baby boomer, "X," and "Y" generations
- Conflict management techniques
- How to find common ground
- How generation gaps can be good for business

Human Resource Management

In today's "do more with less" business atmosphere, many managers are handling tasks that were once reserved for the HR department. While extra work can create stress for any busy employee, these situations are especially difficult for those who lack the skills and expertise to deal with human resource issues.

The good news is that with training and education, managers can become more confident in their abilities and better equipped to handle HR tasks. This workshop will help prepare managers to handle numerous HR situations, including:

- Recruiting, interviewing and training employees
- Advocating for employees' health, safety and wellbeing in the workplace
- Professionally and appropriately administering discipline and terminations
- Creating of a personal action plan to implement after the workshop

Train the Trainer

Anyone who's been involved in a successful training session—either as the trainer or trainee—knows that preparation, skill and the right attitude can make a big difference. Whether you're preparing to be a professional trainer, or you just handle a few training duties as part of your job, this workshop can equip you with the tools needed to provide effective training.

In addition to learning the lingo, this workshop will teach you how to prepare and deliver engaging training sessions. You'll leave with a clear picture of how to:

- Support your presentations with captivating visuals and educational materials
- Understand and respond to participant needs
- Manage difficult participants and tough topics

Personal Development

Emotional Intelligence

Understanding how our feelings and the feelings of others influence motivation and behavior is the essence of emotional intelligence. Thanks to the best-selling book, "Emotional Intelligence: Why It Can Matter More Than IQ", more professionals are recognizing the link between emotions and work outcomes.

It starts with the self, and this workshop helps attendees understand and practice self-management, awareness, regulation, motivation and empathy. Participants will also gain a greater understanding of how to:

- Relate the concept of emotional intelligence to the workplace
- Understand and manage emotions
- Effectively communicate verbally and non-verbally
- Balance optimism and pessimism

Goal Setting & Getting Things Done

Working without goals is a lot like traveling without a destination. You may be moving, but it's hard to tell if you're heading in the right direction. Learning how to create SMART goals is only the first step. Successful goal setters are also well-versed in time management, to-do lists and self-motivation.

This workshop can help you develop those skills and more, leading to increased productivity and satisfaction both personally and professionally. Attendees will learn concepts they can start using right away, including:

- Effective time management techniques
- How to create SMART goals
- Strategies for managing setbacks and overcoming procrastination

Business & Professional Development Courses

Personal Productivity

What would you do if you had more than 24 hours each day? While it's not possible to change how much time we have, it is possible to unlock hidden time with the help of carefully crafted routines and exceptional organization.

If you're ready to maximize your personal productivity, this workshop is for you. Attendees will learn how to take ownership of their time, create an efficient environment and set goals that lead to a more productive life. Key takeaways include how to:

- Use scheduling tools and routines to maximize time
- Organize physical and virtual workspaces for maximum efficiency
- Beat procrastination
- Master the to-do list

Sales & Marketing

High Performance Teams Inside the Company

When groups, organizations or teams work together in an office environment, culture and rapport develop naturally. With the right coaching and leadership, that shared space and camaraderie can become powerful tools for success.

Position your team for amazing achievement by learning to recognize and develop high-performance skills. This workshop will improve your ability to help a group focus on reaching shared goals. Other key takeaways include how to:

- Conduct efficient, effective meetings
- Work collaboratively and address challenges in a professional manner
- Encourage and motivate team members

Marketing Basics

With more ways than ever before to market a business, it can be tough to know where to start and easy for your message to get lost in the crowd. Even so, marketing is an essential component to growth and success.

Learning how to define your target audience, determine your differential advantages and craft the right message will put you well on your way to developing a successful marketing plan. This workshop will build those skills and more, including:

- Understanding different marketing tools and how to use them
- Setting marketing goals and creating strategies that help achieve them
- Recognizing and avoiding common marketing mistakes

Image Management

Having a well-connected network can make all the difference when looking for a new career opportunity, trying to land a meeting with a potential client, or recruiting top talent. But in order to harness the power of a network, you first need to build one.

Networking takes more than a great image. Solid communication skills, finding the right events and selling the benefits of a professional relationship are key pieces as well. This workshop includes hands-on activities that will help you learn how to:

- Make the most of meet and greet opportunities
- Dress for success
- Professionally communicate during times of crisis
- Use social media for professional purposes

Motivating Your Sales Team

Public recognition, competition, quiet praise—motivational methods are diverse and numerous, and what works well for one employee may not inspire the next. Using the right incentives for your sales team can be one of the most effective ways for improving performance, increasing productivity and boosting morale.

This workshop will help you identify how each member of your team is motivated and develop communication and mentoring techniques that resonate accordingly. You'll learn how to:

- Create and foster a motivational environment
- Use communication and training as motivational tools
- Tailor incentives and strategies for individual employees

Overcoming Sales Objections

A quality product at a great price could be turned down due to lack of understanding, failure to establish a rapport with the buyer, misinformation or a host of other reasons. Successful salespeople know that "no" can often be turned into "yes" with some persistence and the right information.

Once you've uncovered the true objection, you're one step closer to eliminating it. Attendees will learn common sales objections, how to define them and most importantly, how to overcome them. Key takeaways include:

- Understanding factors that contribute to objections
- Selecting the right strategy to overcome objections
- How to eliminate objections and close the sale

Sales Fundamentals

Selling is an art and like many art forms, it can be complex and difficult to fully grasp without guidance or experience. Having an innate ability to sell is helpful, but even those with natural talent can benefit from a solid understanding of sales fundamentals.

Participants in this workshop will explore the sales process, tools to help close the deal and strategies for handling objections. Attendees will leave more confident in their abilities to:

- Speak the language of sales
- Research and prepare talking points
- Make a compelling pitch
- Follow up after the sale
- Collect meaningful data

Business & Professional Development

Workplace Essentials

Conflict Resolution

Wherever people are, so too is conflict. Even seasoned professionals who have worked together peacefully for years can disagree and experience tension. In some cases, conflicts can be worked out between the parties involved. In others, intervention isn't just necessary, it's essential to avoiding a dip in productivity or even a lawsuit.

While conflict can't be eliminated entirely, it can be properly handled. Using a seven-step process, this workshop will teach professionals how to resolve conflicts of any size and type. Participants will learn crucial skills and information, including:

- The five main styles of conflict resolution and how to adapt them for all types of conflicts
- How to break out process tools to prevent conflict
- Anger and stress management techniques

Customer Service

Whether internal or external, every employee serves a customer. That customer could be the consumer who buys your product or the coworker who depends on your bookkeeping services in order to balance accounts. No matter the type of customer, service matters and exceptional service can lead to exceptional results.

This workshop will help attendees define different customers and identify the type of services that each requires. Participants will learn techniques for providing excellent service online, in-person and over the phone, including:

- Understanding how attitude impacts service
- Identifying customer needs
- Using outstanding service to build trust and grow business
- Dealing with difficult customers

Handling a Difficult Customer

With the right training, knowledge and skills, providing excellent customer service is easy. That is, until you face a challenging customer. While assisting difficult customers may never be easy, the right attitude and technique make it possible to turn negative situations into something positive.

This workshop will teach you how to engage customers and provide effective service, even in the most difficult situations. Attendees will learn how to:

- Manage stress and cultivate a positive attitude
- Build rapport with customers in-person and over the phone
- Understand challenges and develop strategies to adapt

Networking Outside the Company

A great network can be helpful when trying to land a meeting with a potential client, source a supplier for a large project and more. But before you can harness the power of that network, you have to build it.

Effective networking is more than attending an occasional mixer or meeting college pals for drinks. In order to develop relationships that are mutually beneficial, you must define what you can offer and what you need from others in return. This workshop will help you:

- Identify and avoid networking obstacles
- Use online networking tools
- Prioritize contacts and effectively manage networks

Networking Within the Company

Having a strong external network can be very beneficial, but in some cases, a well-developed internal network is even more important. Which team member can you count on when the success of a project in on the line? Who will help champion your new idea and get leadership's attention? Internal networks can do all of these things and more.

Workshop attendees will not only learn how to make internal connections, but also how to fully-utilize and leverage those relationships. Participants will gain a better understanding of how to:

- Use networking tools and build relationships
- Avoid common mistakes
- Successfully manage time

Risk Assessment & Management

Identifying and managing risks is an important step in the safety process. While eliminating risks is ideal, it's not always possible. That's why preparation is key, and having a plan for before, during and after an event is an essential piece of the safety puzzle.

This workshop will help participants find hidden risks and develop procedures to prevent accidents. Attendees will learn how to:

- Identify hazards and risks
- Update control measures
- Outline a disaster recovery plan
- Effectively communicate about safety and risk management with coworkers

Computer/Software, ELearning/Video/Web

Microsoft Office Suite Training

Microsoft Office has long been the most popular productivity suite used by more people than any other. Learn Microsoft Office with our hands-on, instructor-led classes in classroom, live online or onsite at your office. Our courses cover all programs in the Microsoft Office Suite: Excel, Access, PowerPoint, Outlook, Word, Project, Visio and Publisher.

Microsoft classes are offered in introduction, intermediate and advanced formats, each in 8 hr formats. Classes can be delivered at our site or client facility.

CTS Class

- On our campus or your facility
- Hands-on exercises for maximum learning
- Live instructors teaching

CTS Offers

- Private training onsite at your office
- Ideal when you have several students
- Custom class based on your needs

What's New in Windows?

This course is designed for people who are upgrading to the latest version of Microsoft Windows. The class will compare and contrast differences in the new version as compared to previous versions. Shortcuts for working in Windows will be shared along the way.

OneNote Introduction

Learn how to use OneNote to make creating and organizing content easier. Students will learn how to create notes containing text, graphics, tables, videos, and more. Additionally they will learn how to share this information with others and how to integrate OneNote with other Microsoft Office applications.

SharePoint End User

This course is designed to help brand new SharePoint users learn how to work within this document sharing platform. Students will learn how to add and edit both library and list items as well as how to use views and metadata.

SharePoint Site Design

This course is designed to help those with designer level access or higher learn to develop items for a SharePoint site. Students will create list, libraries and web pages, work with site navigation and alerts.

SharePoint Site Owner

This course is designed to help power users who need to learn the fundamentals of managing SharePoint sites. Students will learn about assigning permissions to groups and individuals, breaking inheritance, content approval, information management poicy and creating custom document IDs.

Data Dashboards

The need for managers to make data-driven decisions is crucial Summarizing that data into a manageable/readable format is the challenge. In this course students will learn how to create interactive Excel dashboards that can be easily updated.

Excel Pivot Tables

This course will show students how to perform data analysis with pivot table and pivot Charts.

Excel Charts

Students will learn how to take raw data and turn it into visible information using Excel's charting tools. This class explores the different types of charts available in Excel and their best applications.

Creating Custom PowerPoint Files

This course is for those who have created basic PowerPoints who now need to create customized shows. Students will learn how to working with hidden slides, custom shows, masters, sections and how to add interactivity to their presentation files.

Mail Merges

This course is designed to help users who need to merge a list of contact information with a document in Word. The class will look at creating letters, envelopes and labels from data sources including Word, Excel, Outlook and SharePoint. Students will also learn to merge with Outlook.

CUSTOM CLASSES AVAILABLE

Call for custom classes on many computer topics

- Adobe
- Crystal Reports
- Microsoft.NET
- Microsoft Project
- SQL Server
- Quick Books

Ohio Manufacturing Extension Partnership

MEP is a state initiative supporting profitable manufacturing growth. An MEP representative is integrated with both the Advanced Manufacturing Consortium and the Ohio Lean Consortium to help connect member companies with resources to power that growth.

MEP helps drive economic growth and job creation through:

- Sustainability
- Continuous improvement
- Supply chain
- Workforce
- Technology acceleration

From automotive to advanced materials, Ohio's manufacturing scene is more diverse than ever before. From training to technology, those manufacturers' needs are more diverse than ever before. MEP is the network that links the two, providing manufacturers with the solutions needed to help drive innovation.

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OhioLean CONSORTIUM

Mission: The Ohio Lean Consortium strives to strengthen and support the member businesses and organizations through education, networking and sharing of lean principles and practices for its members. We plan to accomplish our mission through the following activities: seminars, speakers, certification workshops, on-site tours, collaboration and communications of fellow members.

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Advanced Manufacturing Consortium

Mission: Assist manufacturers in creating and retaining jobs, increasing profits and saving time and money by providing innovative solutions and forming connections to key stakeholders and resources in the manufacturing ecosystem.

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