

ESW INC.

EDUCATIONAL SYSTEMS WORKSHOPS

CUSTOM TRAINING & ENGINEERING SERVICES



***TRAINING and SERVICES
Designed to Attain
YOUR Objectives!***



www.eswinc.com



Company Profile

ESW, Inc. -Educational Systems Workshops- is an industrial training company headquartered in Crown Point, Indiana, with a regional office in Ohio. Since 1987, we have provided custom-designed training programs to accomplish the training objectives specified by our client firms.

ESW is also a technical resource company that provides its customers with solutions to a variety of training, technical staffing and management problems. We can structure programs which are responsive to your specific needs and have proven to be low cost compared to alternative approaches.



ESW has an excellent staff of full-time instructors who have furnished over 15,000 weeks of in-plant training. Nearly all topics of interest to manufacturing plant personnel are within our scope of expertise. We maintain several hundred thousands of dollars worth of training equipment and materials to support our work. Our training is mostly hands-on, so that students can gain real-life knowledge from our applied demonstrations and examples.

ESW's tremendous amount of repeat business is a compelling demonstration of our quality and customer focus. We have earned a reputation for meeting objectives, exceeding expectations, quality orientation, delivering value, and getting results. We have a wealth of experience in providing training programs to dozens of companies and government agencies, each designed to meet the client's specific needs and objectives. The strengths of our instructional staff include the practical know how – they have “been there and done that”. They have seen many of these problems before. They know how to solve the problem and how to lead your employees work toward their full potential.



Areas of Expertise

ESW will design a training program for your employees, at your location, that meets your specifications. We will bring equipment and supplies necessary to make your program a complete **SUCCESS!**

- **Operator Training**
- **Facility Programs**
- **Craft Programs**
- **Specific Equipment Programs**
- **Quality/Safety/Environment**
- **Workforce Upgrades**
- **Soft Skill Training**
- **Service Programs**





Areas of Expertise

OPERATOR TRAINING

ESW will analyze the operator's responsibilities, breaking them down into the essential competencies required to do the job properly and safely. We then develop the appropriate instructional materials and conduct the training with **ESW's** proven training development methodology. The training program will consist of a trainee's guide, a trainer's guide, and a Train-the-Trainer Program. Each will be designed according to the needs of your operation – you specify the safety, quality, productivity and maintenance issues.

ESW Training Developers are dedicated to producing your training from start to finish. The project is not passed from person to person. Our developers will work with your subject-matter expert right at your site to produce the finished products – review and cycle time are held to a minimum. Depending on the complexity of the targeted job, training development may take as little as four weeks per position.

All of this adds up to great benefits, including:

- Daily Tracking
- Competency Based Qualification
- Mastery of Critical Tasks
- Designated Trainer
- In-depth Content
- Pay for Skill Structure
- Logical Sequence of Training Events



Areas of Expertise

FACILITY PROGRAMS

ESW has designed numerous facility programs, all customized to a specific plant or department. Some examples include:

- **Plant Start-Ups**

ESW can customize programs for a variety of start-up requirements, including: Operator Training, Safety, Maintenance - Electrical, Mechanical and Instrumentation, *Crane and Mobile Equipment, SOP, Predictive and Preventive Maintenance, ISO and Quality, Team Building, Assessment and Testing, Administration, Management and Computers.

- **Automation Upgrades**

- **Major Equipment Installations**

- **Training Coordination**

- **Procedure Writing**

ESW will furnish an editor and writers to assist in generating a training manual for new or existing facilities.

- **Predictive/Preventive Maintenance**

- **Computerized Maintenance Programs**

- **Training Needs Analysis**

***ESW** will train your operators on your cranes or mobile equipment to your plant or department specifications. We can also perform the testing associated with qualifying crane and mobile equipment operators to a particular department or plant standard.



Areas of Expertise

CRAFT PROGRAMS

Turn to **ESW** for your customized craft program. Here is just a sample of the hundreds of programs that we have developed:

■ **Electrical**

ESW's electrician series helps employees keep up with today's rapidly advancing technology. Classes can include: Safety, DC and AC Circuits, Semiconductors, Electronic Circuits, Digital Concepts, PLC's and Plant Systems. Each class is presented in a highly interactive "hands-on" format with approximately 50% lab time.

ESW supplies the trainers, tools, test equipment and text.

■ **Mechanical**

Topics include: Safety, Power Transmission, Material Handling, Fasteners, Rigging, Pumps, Hydraulics, Pneumatics, Lubrication, Power Tools, Mechanical Drawing, Precision Measurement and Sheet Metal.

■ **HVAC**

Employees will learn to service your equipment, locate leaks, isolate defective components, evacuate and recharge units, operate recovery equipment, and troubleshoot HVAC systems.

■ **Multicraft, Crosstraining and Apprenticeships**

ESW will implement an existing program or help you establish a new one from state approval if required through graduation.

■ **Electronics**

■ **Welding/Burning**

■ **Pipefitting**

■ **Wireman**

■ **Instrumentation/Combustion**

■ **Machinist (CNC)**

Each of the above craft programs has a similar list of course topics designed to help your employees gain craft competencies in the shortest possible time.





Areas of Expertise

SPECIFIC EQUIPMENT PROGRAMS

ESW is prepared to develop many specific equipment programs. Some of these include:

■ **PLC's**

ESW will prepare a course using your Functional Description, Process Schematics, Ladder Diagrams, I/O Listings, Elementaries, Interconnection Diagrams and Programming Software. Training targets your objectives and follows the outline you help design. The course will emphasize troubleshooting and using the PLC as a window to view the process system. A significant amount of the course is spent in the plant studying the actual field devices and process equipment.

■ **Hydraulics**

ESW will use your Operational Descriptions, Hydraulic Schematics, Mechanical Drawings, Vendor Cut Sheets and Logic and Control Sequences to create a course customized for you. This highly interactive class will emphasize safety and troubleshooting, while keeping math and formulas to a minimum. We are also prepared to present a generic Hydraulics Basics course, using our Vicker's trainers and demonstration equipment.

■ **Regulators**

■ **Drives**

■ **Level 1, 2, 3**

■ **X-Ray/Inspection Equipment**

■ **Level Control Systems**

■ **Crane Maintenance**

■ **Bottling Systems**

■ **Scales and Batching Systems**

■ **Communication Systems**

■ **Packaging Systems**

■ **and hundreds of others**





Areas of Expertise

QUALITY/SAFETY/ENVIRONMENTAL TRAINING

ESW's tremendous amount of repeat business is a compelling demonstration of our quality and customer focus.

ESW will furnish technical assistance to help a unit, department or entire plant achieve certification. Whether it's ISO 9000/14000, QS 9000, or a QC Plan you are looking for, **ESW** can help in developing:

- Training Plans
- Document Control
- Software Training
- Quality Manuals
- Work Instructions

ESW will develop OSHA/Safety Training and Program Development.

A complete line of programs for OSHA mandated topics and others:

- Confined Space
- Personal Protective Equipment
- Hazmat
- Mobile Equipment
- Gas Safety
- Lockout/Tagout



ESW will furnish a Lockout and Tagout Program for a unit or machine, or for an entire department, including completed documentation on a disk with pictures suitable for residence in your computer system. **ESW** has four safety engineers on staff with over 100 years combined industrial experience.



Areas of Expertise

WORKFORCE UPGRADES

- **Craft Enhancement**
- **Multi-Craft**
- **Operator Maintenance – Programs designed to maximize the benefits of new work systems**
- **Apprenticeships**
- **Pay for Skill**



SOFT SKILLS TRAINING

- **Project Management**
- **Conflict Resolution**
- **Teambuilding**
- **Diversity**
- **Interpersonal Communication**
- **Personal Performance Assessment**



Areas of Expertise

SERVICE PROGRAMS

- **Surveys**
ESW will furnish knowledgeable individuals to design, administer, compile needs assessments, and present information to management on any department -or plant-wide topic.
- **Training Development**
ESW furnishes full-scope development services including needs analyses, task analyses, curriculum development, courseware, train-the-trainer and similar components of criterion-based training programs. Delivery may be by **ESW**, yourself or others as you
- **Training Coordination**
ESW will supply a knowledgeable individual to oversee your training program, coordinate all training vendors and help you assemble a program designed to meet your specific objectives.
- **Engineering Services & Project Management**

Sample Program Summary

CRAFT PROGRAMS

- ☆ Electrical
- ☆ Mechanical
- ☆ Electronic
- ☆ Welding
- ☆ Pipefitting
- ☆ Wireman
- ☆ Instrumentation / Combustion
- ☆ Machinist
- ☆ HVAC
- ☆ Multicraft
- ☆ Crosstraining
- ☆ Craft Testing

SPECIFIC EQUIPMENT PROGRAMS

- ☆ PLC's
- ☆ Regulators
- ☆ Drives
- ☆ Level 1,2,3
- ☆ Xray/Inspection Equipment
- ☆ Crane Maintenance
- ☆ Torch Machine
- ☆ Scales
- ☆ Auto Gauge Control
- ☆ Shape Control
- ☆ Packaging Equipment
- ☆ Bottling Equipment

FACILITY PROGRAMS

- ☆ Plant Startups
- ☆ Automation Upgrades
- ☆ Major Equipment Installations
- ☆ Training Coordination
- ☆ Procedure Writing
- ☆ Predictive/Preventative Maintenance
- ☆ Computerized Maintenance Program
- ☆ Training Needs Analysis

OPERATOR PROGRAMS

- ☆ Mobile Equipment
- ☆ MMI
- ☆ Operator Maintenance
- ☆ Operator Procedures
- ☆ Safety

QUALITY/ SAFETY/ ENVIRONMENT

- ☆ ISO 9000 & 14000
- ☆ Standard Operating Procedures
- ☆ OSHA Mandated Training
- ☆ EPA Mandated Training
- ☆ SPC/IPC
- ☆ JSA
- ☆ Lockout/Tagout Programs

WORKFORCE UPGRADES

- ☆ Apprenticeship Programs
- ☆ Cross-training
- ☆ Operator/Maintenance
- ☆ Multicraft Training
- ☆ Train The Trainer
- ☆ Career Development
- ☆ Technical Staffing

COMPUTER TRAINING

- ☆ Software Training
Windows Power Point
Excel Vista
Word
Project
- ☆ Application Development
- ☆ Consulting
- ☆ Hardware Upgrades
- ☆ Network Training
- ☆ Network Installation
- ☆ Basic Computer Training

SERVICE PROGRAMS

- ☆ Engineering Assistance
- ☆ Consumer Advocate
- ☆ Project Management
- ☆ Temporary Staffing

FACILITY START-UP

- ☆ Operator Training
- ☆ Safety
- ☆ Maintenance
- ☆ Electrical
- ☆ Mechanical
- ☆ Instrumentation
- ☆ Crane & Mobile Equipment
- ☆ SOP
- ☆ Predictive & Preventative Maintenance



Technical Staffing

ESW is a technical resource company that provides its customers with solutions to a wide variety of training, technical staffing and management problems.

Our services include providing both temporary and permanent technical staffing.

Through **ESW**, you can access a wide variety of highly qualified technical talent, whether you need help for one day or on a permanent basis.

Short Term

ESW can provide technical personnel on a cost-effective basis for periods as short as one day.

Long Term

ESW can provide technical personnel on a long-term basis so that you can avoid the costs and of Technical Recruiting, Providing Benefits, Training and Managing Technical Staff

Project Staffing

Many customers use **ESW** for special projects, such as:

- Hardware Upgrades
- Software Upgrades
- Problem Solving
- Plant, Business and Office Start Ups
- Supplemental Management
- Training

Temporary to Permanent

You can convert some **ESW** personnel to full-time employees under arrangements that are flexible and cost effective. (Typically 90-day temp/free hire for non-trainers.)

Permanent Staffing

ESW can fill your specification for permanent employees on a flat fee-for-hire basis.

Positions Available from ESW

- Computer Technicians
- Maintenance & Operating Supervisors
- Hardware/Software Engineers
- Production & Maintenance Workers
- Engineers
- Clerical Workers
- Project Managers
- Trainers
- Specialists/Consultants



Sample Basic Electrical Subjects

- Safety
- Hand Tools
- Power Tools
- Soldering
- Drawing Practices
- Electrical Blueprint Reading
- Fundamentals of Electricity
- DC Mathematics
- Magnetism
- Meters and Meter Reading
- Wiring Methods
- Basic DC Theory
- AC and DC Generation
- AC Generators
- DC Generators
- AC Mathematics
- Basic AC Theory
- Resistors
- Heaters and Furnaces
- Capacitors and Inductors
- Batteries
- Contactors and Relays
- Safety Switches and Breakers
- Solenoids
- Brakes
- Auxiliary Equipment
- Lighting
- Ignition Systems
- Switchgear/Circuit Breakers
- Conduit Bending
- Induction Heating
- DC Motors
- Commutation and Brushes
- AC Motors
- DC Motor Controls
- DC Crane Maintenance
- AC Crane Maintenance
- Preventive Maintenance
- Rectifiers
- Power Systems
- Testing, Calibration, and Troubleshooting
- Logs and Report Writing
- AC Circuits
- Transformers
- Heating, Ventilation and Air Conditioning
- Synchros and Servomechanisms
- Magnetic Amplifiers
- Semiconductors
- Electronic Circuits
- Digital Techniques
- Logic Function Analysis
- Process Control
- Combustion Control
- Instrumentation
- Regulation and Regulators
- Electrostatics
- Public Address and Intercoms
- Photoelectric Controls
- Counters
- Loop Controls
- Remote Control Systems
- Closed Circuit Television
- Thickness and Coating Gages
- Hole Detectors
- PLC's and PC's
- SCR Drives
- DMC's
- Automation Systems
- Systems Analysis
- Computers
- Communication Systems-Data Highways, Control Systems Freeway, etc.



Sample Basic Mechanical Subjects

- Basic Layouts
 - Sheet Metal
 - Sheet Metal Drawings
 - Development of Surface
 - Parallel Development
 - Practice Layout
 - Radial Development
 - Light Gauge Metal
 - Shop Projects
- Precision Measurement
 - Micrometer Reading
 - Measuring Devices
- Blueprint Reading
 - Alphabet of Lines
 - Views
 - Dimensions
 - Threads
 - Finishes
 - Bill of Materials
 - Drawing Notes
 - Metric Drawings
 - Industrial Blueprints
- Shop Power Tools
 - Portable Power Tools
 - Drill Press
- Equipment Leveling
- Pipe Systems
 - Pipe Prints
 - Piping Dimensions
 - Terminology
 - Systems
 - Tubing
 - Installation
- Pumps
- Basic Power Transmission
 - Belts
 - Chains and Chain Drives
 - Couplings
 - Universal Joints
 - Bearings
 - Seals and Packing
- Advanced Power Transmission
 - Gears
 - Gear Trains
 - Speed Reducers
 - Brakes and Motors
 - Clutches
 - Alignment
- Lubrication
 - Principles
 - Characteristics
 - Additives
 - Oils
 - General Purpose Greases
 - Special Purpose Greases
 - Dry Film Lubricants
 - Lubrication Systems
 - Automatic Lubrication
 - Storage and Handling
 - Lubrication Management
- Basic Hydraulics
 - Fluids
 - Reservoirs
 - Piping Systems
 - Pumps
 - Valves-Simple
 - Valves-Complex
 - Actuators
 - Accumulators
- Advanced Hydraulics
- Pneumatics
- Burning
- Welding
- Rigging
- Metal Fasteners
 - Threaded Metal Fasteners
 - Non-Threaded Fasteners
 - Safety
 - Types
 - Characteristics
 - Material Specifications
 - Fastener Failure
 - Torque Methods

