



**PEASLEE  
TECH**

**Custom Industry Courses Portfolio**

**2017**

## Introduction

The Dwayne Peaslee Technical Training facility became a reality through planning by the City of Lawrence, Douglas County, the Economic Development Corporation, and the Lawrence Chamber. This document illustrates several potential, non-credit, custom, short-courses available through Peaslee Tech. For each of the courses below, Peaslee Tech has identified an instructor with relevant experience and expertise. Other courses could be made available upon request.

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### **Mission**

*We are a catalyst for economic growth providing technical training to a diverse community of learners to meet the current and emerging needs of our communities and employers.*

### **Vision**

We envision a community with a technically skilled workforce that fosters retention, expansion, and attraction of business.

### **Values**

Empowering diverse individuals  
Collaborating across the community  
Cultivating innovation and entrepreneurship

### **General Description of Services**

Our statements above make it clear—Peaslee Tech cares about your training needs and your success!

Technical training is our area of expertise. Peaslee Tech pledges to do all we can to help your workforce gain the competencies and skills needed so that your business will thrive.

Peaslee Tech provides custom training to industry partners in areas such as manufacturing, construction, general office/administration, and other skill areas. Though Peaslee offers credit-based courses and programs through community college, we also emphasize custom, non-credit training, based on industry demand. Training takes place at your location or ours, depending on the best fit.

Peaslee Tech provides the following services:

- **Curriculum Development:** You may require support to find instructional materials, identify what type of training is needed, design length and style of training, or other curriculum-driven topics. We help you narrow down the specific training need and make sure that, if materials must be purchased, we find the most economical sources.
- **Instruction:** Finding experts who can train others can be demanding. We seek those with industrial backgrounds in the required skill area. Also, instructors must communicate well with others. This combination of savvy instructor and experienced industry professional results in high-quality and relevant learning experiences.
- **Logistics:** Location of training, days of the week, fitting various shift schedules, type of training room, instructional equipment, food, and other variables.
- **Consortium Management:** By combining training needs with other companies who have similar needs, your training costs may be reduced significantly. We take care of the

communication between companies, arrangements for meetings to determine training focus, training day logistics, and management of the billing and receipting processes.

- Training Evaluation: Peaslee Tech conducts a course evaluation to participants or others identified by industry (supervisors, managers, etc.) to quantify their satisfaction with training.
- Certification: Peaslee Tech provides a *Certificate of Completion* for each trainee who completes a course.

See courses, starting on next page.

## **Lockout-Tagout**

This course could be provided in an overview of 1.5 to 5 hours. Below are areas covered in the course.

- The characteristics of energy-isolating devices
- The OSHA lockout-tagout standard
- The definition of lockout-tagout and how to use it to secure energy-isolating devices
- Situations in which tagout may be acceptable
- Types of lockout-tagout devices
- Employers' and employees' responsibilities for proper implementation of this program

Questions which should be addressed prior to the course:

1. What are trainees' backgrounds?
2. What is management's expectations for the trainees from the class?
3. Does your company have policies relating to lockout-tagout in place now?
4. Your company may already have a program in place. If so, this course could help inform others who are not directly involved in the actual lockout-tagout activity, so it will increase their awareness.
5. What level of training has already taken place?

## **Reduce Peak Demand Charges to Save Money**

- Understanding components of your energy bill and contract
- Demand charges, consumption, interval averaging, peak intensity
- Utility company rationale
- Strategies for prioritizing energy savings
- No cost/low cost adjustments
- Resistive loads
- Inductive loads
- Rectified loads
- Plan development

## **Electrical 101**

- What is power?
- History
- Westar, coal, turbines, nuclear, EPA
- Safety, Fire Code
- Types of insulators
- Types of conductors
- Grounding (sec 250)
- Lock out-tag out

## **Understanding Electrical Components**

- Inductors
- Resistors
- Rectifiers and transistors
- Conductors
- Capacitors
- What are capacitive loads?
- What are inductive loads?
- What is reactive power?

## **Wiring Concepts**

- Low volt, high volt 24v-600v
- Residential wiring
- Commercial wiring
- Terminations
- Controls
- Wire sizing
- Breaker panels, and ratings

## **Theory**

- Tesla, Westinghouse, Edison, Joule
- Amperage, voltage, wattage and how they relate
- Smart meters
- Power triangle
- Power factor

## **Advanced Theory**

- Electrical engineering basics
- Circuit board testing
- Transistors and PNP switching
- Binary and computer development

## **Troubleshooting, General**

- Node analysis
- Power loggers and meters
- Tracing
- Testing devices
- Sensible approach

## **Troubleshooting Active Circuits**

- Node analysis
- Using clamp meters
- Controls, PLCs, thermostats
- Safety loops

## **Troubleshooting Motors**

- Different types of motors
- Single phase vs. three phase
- Current relays and capacitive starts
- Testing windings with high voltage
- Using ohm meters, insulation testers, Meg ohming
- Understanding "single phasing"
- Testing active and reactive power
- Power factor correction on motors

## **Advanced Troubleshooting**

- Using oscilloscopes
- Wave patterns
- Clipping
- Harmonics
- Voltage drop
- EMI and interference
- Leading and lagging current

## **Circuits**

- Understanding schematics
- Symbols
- Bonding

## **Energy**

- Power logging
- Coincidentally loading
- Power and costs reduction
- Smart meter and demand
- Demand charge reduction
- Load analysis
- Advanced power factor correction
- Cost analysis
- Magnitude thresholds

- Speed control and energy savings
- DOE reports
- Case studies

### **New Technologies**

- High efficiency systems
- Soft starters
- Arc suppression and snubbing
- Capacitor banks and variation
- Permanent magnet motors and drives
- VFD Application
- DOE reports, case studies
- Harmonic filters

### **Commercial Refrigeration Electrical**

- Testing compressors
- Control wiring
- Concepts
- EPA regulations

### **Hydraulics/Pneumatics**

- Hydraulic Principles (hydrostatics, hydrodynamics, liquid characteristics, lift pressure, friction, capacity, mechanical advantage, energy and work, efficiency)
- Hydraulic Applications (circuitry, diagrams, circuit components, fluid, strainers and filters, additives, oxidation, reservoirs, piping, pumps, gears, valves, direction controls, actuators, accumulators, hydraulic circuit maintenance).
- Uses ATP curriculum or other if requested.
- Course requires approximately 2-4 hours of math training prior to hydraulics training

### **Math Skills**

- Fractions
- Decimals
- Percentages
- Word problems using the above
- Scientific notation
- Weights and measures
- Basic geometry
- Graphing
- Can expand with algebra

## **Other Industrial Courses (bulleted descriptions will be added)**

### **Blueprint Reading**

#### **Fundamentals of Carbon Steel Heat Treating**

### **Introduction to Lean/Continuous Improvement**

- What is Lean – Background and History
- Why Lean? Why now? Why You?
- Key Components of Lean/Continuous Improvement
- Why companies have trouble sustaining Lean/Continuous Improvement Initiatives
  - Five Common Pitfalls and How to Avoid Them

### **Building a Foundation for Lean/Continuous Improvement – Essential Skills for Frontline Managers/Supervisors**

- Training Within Industry – Foundation for Lean Thinking
- Job Instruction (How to Instruct)
- Job Relations (How to Improve Performance)
- Job Methods (How to Improve Work Methods)
- Problem Solving (How to Apply P-D-S-A Improvement Cycle)
- Program Development (How to Meet a Business Problem Through Training)

### **Basic Lean Concepts**

- Understanding Waste and Non-Value-Adding Activity
- Eight General Types of Business Waste
- Improving Productivity Through Lean
- Applied Learning – Business Improvement Simulation

### **Developing a Continuous Improvement/Lean Culture**

- What is a Lean Culture?
- How do you Change the Culture?
- Leadership
- Communication
- Empowerment
- Teamwork
- HR's Role in Developing a Lean Culture
- Case Study Examples

### **The Essential Lean Tools**

- 5S
- Team Building
- Structured Problem Solving
- Total Productive Maintenance (TPM)

- Manufacturing/Office Cells or Pods
- Setup Reduction/Quick Changeover
- Inventory Management/Pull Systems/Kanban
- Kaizen/Rapid Improvement Events

Note: Each of these Essential Lean Tools can be delivered as a 2-hour stand-alone training class or delivered as a suite of training sessions as part of an all-inclusive course or program.

### **Lean Certification (SME Lean Knowledge Certification)**

- Overview of SME Lean Certification Process
- Introducing Lean and Lean Concepts
- Lean Methodologies, Tools and Techniques
- Going to the Gemba
- Leading Continuous Improvement/Kaizen events
- Sustaining a Continuous Improvement/Lean Culture
- Practice Exam and Practice Problems
- SME Lean Knowledge Examination (4-hour on-line exam)

### **Effective Problem Solving and Root Cause Analysis**

- What is Root Cause Analysis?
- Root Cause vs. Symptoms
- Steps for Conducting a Root Cause Analysis/Investigation
- Problem Solving Tools (when and how to use them)
  - 5 Whys
  - Cause and Effect Diagram
  - Pareto Charts
  - Run Charts
  - Statistics (ANOVA)

### **Leading Continuous Improvement/Kaizen Events (Sustaining change one small step at a time)**

- An Introduction to Kaizen
- Why Kaizen Works and Pitfalls to Avoid
- How to Lead a Kaizen Event
  - Kaizen Process
- Cost-Benefit Analysis of Kaizen Projects
- What to do When Even Small Steps are too Hard
  - Overcoming the Five Common Obstacles

### **Computer Courses (Outlook Basics, Internet and Security, Word, Excel, Project, PowerPoint)**

- Level I and Level II available (below are bullets for Level I courses)
- Short courses ranging from 4 to 16 hours each, depending on need and level

### **Intro Word**

- Creating files, saving, organizing, printing, searching, deleting files
- Creating, saving, editing templates
- Creating multiple page reports
- Inserting images

### **Excel**

- Learn concepts uses of spreadsheet
- Enter data, move and delete data on an existing spreadsheet
- Create new spreadsheet, workbook, create charts, graphs
- Basic tables, formulas, functions

### **Access**

- Introduction to concepts, applications, defining fields
- Entering data, filtering, sorting data, query database
- Creating forms, reports

### **Power Point**

- Create slide presentation using a master sheet
- Learn to create and use templates, text, color schemes, logos
- Insert photos, enlarge/reduce, insert sounds
- Learn to print, create speaker notes, slides for overhead

### **Intro to Internet**

- Learn email, compose, send, receive
- manage calendars, appointments, to-do list contact
- Instant messaging
- Security

### **Intro to Windows**

- Learn how to create and organize folder system
- Create file backup and maintenance
- Learn how add new hardware

### **Intro to Photoshop**

- Manipulate digital photographs
- Create layers, manipulate, adjustments
- Cut and Paste images, change lighting, contrast
- Change digital formats, sizes and images for desktop publishing

### **Project Management**

- Learn various PM tools
- Learn MS PM and components: Gantt chart, Critical Path, Pert,
- Learn budgets, resources and Delta Plus Closure

### **Building My Career (Essential Employability Skills and More)**

- Expectations of trainees and of Peaslee Tech management are conveyed to each other.
- Essential Employability Skills (resume writing, interviewing, workplace readiness, etc.)
- Communication
- Career Choices
- Work Ethic
- Teamwork
- Can invite industry partners to participate in this course to provide trainees with a sense of their commitment to training, industry partner concepts of career development, and their support for skilled workforce.
- Trainees develop a career pathway model by considering the key areas associated with growth in successful careers. This pathway model helps trainees understand the value of thinking about a career proactively, rather than simply getting a job.

### **Conflict Management in the Workplace**

- This course helps participants understand conflict, viewpoints stemming from another person's perspective
- How to manage anger, fair fighting guidelines, and argumentation
- Emphasis is placed on conflict resolution methods, mediation, being an effective employee and the role of human relations in a company.

### **Creative Problem Solving**

- This course helps participants learn the advantages of structured problem-solving approaches.
- Participants learn how to identify core problems, solution options, and the impacts of decisions on work processes.
- Examples of problems found in industry-partner companies will be used.

### **Financial Literacy**

- This course helps you learn about banking, debt, planning, being an informed consumer, investing in education, purchasing a car or home, taxes, life insurance and other insurances.
- Estate state planning and development of a lifelong perspective on your personal financial health.
- Provides a broader perspective about financial literacy for the individual.

### **Supervision for New and Front Line Supervisors**

- Helps supervisors know why supervision is important and identifies characters of leadership.
- Identifies skills required for great supervision
- Incenting behavior and active listening
- Feedback in the working environment, introduction of the DESC model
- Examples and exercises

### **Leadership**

- Leadership training helps managers, supervisors, and other employees who show promise for growth in leadership.
- Accelerates development of skills required by leaders
- Provides support for managing responsibilities and accountability
- Helps participants incorporate their personal leadership models into their careers

(See instructor resumes starting on next page)

## INSTRUCTORS

### **David Budke**

David grew up in Chase County, Kansas, and attended Chase County High School. He worked at Martin Marietta Aggregates as plant operator and plant electrician. At his time there he was promoted to shift lead and lead electrician. Graduated from Flint Hills Technical College (FHTC) in 2006 from the Industrial Engineering Technology program.

He worked at Camso as a maintenance technician and was promoted to shift supervisor before returning to FHTC to teach in 2008. David has taught both first year and second year classes as well as being the school safety coordinator.

Classes taught by David at FHTC include classroom, lab, and on-line techniques. The Industrial Engineering Technology classes he has taught include Industrial Electricity, Industrial Wiring, Motor Controls, Electrical Troubleshooting, Residential Wiring, Hydraulics and Pneumatics, PLC1, PLC2, Instrumentation, Mechatronics and Mechanical Principles. He also has taught 2-3 day training workshops on Motor Drive Programming, Introduction to RSLogix 5000 and Factory Talk View, and Hydraulics and Pneumatics.

## **Terry M. Demmon**

Terry is a mechanical engineer who has been employed in positions of manufacturing management throughout his career. He is comfortable in such environments and is now semi-retired, wanting to stay involved.

### Career highlights

1975 to 1990 Unit Rail Anchor Company. Manufacturer of anti-creep devices for nation's railroads. Hot formed/heat treated carbon devices. Produced approximately 30,000 tons per year. Started as plant engineer and promoted to VP of Operations. Highest ranking official on site and responsible for P&L below sales level.

1990 to 1993 Cedrite Technologies. Start-up company manufacturing reconstituted railroad ties. Employed as VP of Manufacturing. Responsible for all manufacturing operations.

1993 to 1994 ROM Corp. Operations manager for manufacturer of bulkheads, ramps and shutters for transportation industry. Responsible for all manufacturing.

1994 to 1997 MGP Ingredients. Plant manager for manufacturer of industrial, fuel and beverage alcohol as well as starch and gluten specialty products. Approximately 180 hourly employees and \$200 million in sales.

1997 to 1999 Progress Rail Services. Manufacturer of anti-creep devices as at Unit Rail Anchor.

1999 to 2009 MGP Ingredients, as above as plant manager again.

2009 to 2015 Austin Nichols Technical Temporaries. GM for company providing technical engineers and manufacturing professionals to large varieties of industries.

Education: BSME from University of Kansas in 1973

## **Marvin Hunt, Ph.D.**

Marvin is the Executive Director of the new Dwayne Peaslee Technical Training Center in Lawrence Kansas.

He has served a career in higher education including 12 years at KU Speech-Language-Hearing Department and 10 years at KU Continuing Education. At Continuing Education, he directed professional continuing education/training for a variety of industries. At KU he founded the Osher Lifelong Learning Institute and served as its first director. His research has focused on lifelong learning.

After KU, he served as the Vice President and Dean at Baker's School of Professional and Graduate Studies in Overland Park. Then, he served four years as Dean of Business and Continuing Education at Kansas City Kansas Community College (KCKCC) where he also oversaw their Workforce Development activities. At KCKCC, he initiated the Innovation Summit for entrepreneurs at high school and adult levels, and attained grant funding to create the Innovation Center facility on campus.

Marvin's educational background includes undergraduate and graduate degrees from KU in Communication Studies and a Doctorate of Education from the University of Nebraska. He has taught credit courses at associate, bachelor, master, and doctoral levels within the four higher education organizations in which he has worked, including leadership courses at the graduate level. He has also taught a variety of noncredit training courses in workforce development, focusing on essential employability skills and career development. He designed the *Building My Career* sequence at Peaslee Tech.

His work at Peaslee Tech has included facility development and renovation and the development of training programs in conjunction with many area industrial and educational partners. He has technical expertise in audio production and "farm" mechanics.

Marvin and his wife, Cathy, live south of Lawrence and enjoy their rural home, their land, and the area's natural wildlife.

**Will Katz**

Will has extensive experience and training in performance management, leadership, and communication in the workplace. He serves as the Regional Director of the Small Business Development Center at the University of Kansas. He has a variety of professional and management experiences from companies both large and small. He spent 17 years at E and E Display Group in Lawrence, KS, beginning in 1987 and culminating as Production Manager in charge of manufacturing operations for a company with 200 employees producing \$25 million in annual revenues. He has also served as a people leader in Fortune 50 companies, General Motors and Target.

Will is passionate about working with small businesses to help them succeed in our communities. In his time as director, Will has met with more than 2000 entrepreneurs and prospective entrepreneurs. KU-KSBDC clients have started approximately 400 businesses and raised approximately \$75 million in capital during his time in the director's position.

Will received his B.A. in Philosophy and Russian in 1993, and earned his KU MBA in 2001. Will was awarded the Certified Valuation Analyst in 2014.

## **Mike Niedenthal**

Mike is Director for MAMTC's Overland Park Office, specializing in technologies of Lean Enterprise and Innovation Engineering. He is Program Manager for MAMTC's Lean Innovation practice. Since joining MAMTC in 1992, Mike has assisted Kansas companies to accelerate their rate of transformation and improvement. In partnership with Kansas Department of Commerce and its Kansas Industrial Retraining Program, Mike has assisted numerous Kansas manufacturers to implement company-wide workforce development programs.

Prior to joining MAMTC, Mike worked 15 years in manufacturing management. His career started at Procter & Gamble as Operations Manager of Paper Products and International Divisions and then as Plant Operations Manager in its Coffee Division. He then worked as Project Engineering Manager for ARAMCO, in Dhahran, Saudi Arabia, responsible for the improvement of its global supply chain operating practices. He has served as a guest lecturer of KU's Engineering Management Graduate Program at the Edwards Campus.

Mike's educational background includes the Society of Manufacturing Engineers: Lean Bronze Knowledge Certification (2009); Institute of Management Consultants: Certified Management Consultant (1990); The University of Kansas: Master of Business Administration (1982); and Kansas State University: Bachelor of Science in Industrial Engineering (1973).

### Publications and Programs

*Layout for the Just-In-Time Plant*, National Plant Engineering Conference Proceedings, Cahners Press, 1987.

*Lean Essentials for the Printing Industry*, Printing Industry of America National Conference, Kansas City, MO, 2011.

*Lean/Six Sigma Best Practices for the Printing Industry*, Printing Industry of America National Conference, Dallas, TX, 2014

Author of programs presented through MAMTC, KU's Engineering Management Graduate Program, Institute of Industrial Engineers (IIE) and Society of Manufacturing Engineers:

- Manufacturing Systems Integration (EGMT 862)
- Lean Manufacturing/Lean Enterprise (With Simulation)
- Principles of the Lean Office and Lean Administration: Bronze and Silver Certification levels

### Professional Activities and Awards

- Recipient of NIST/MEP National Practitioner of the Year (1999)
- SME/AME/Shingo Lean Knowledge/Bronze Certification (2009)
- Certified Instructor for the NIST/MEP Lean Manufacturing Series
- Certified Instructor for the Visual-Lean® Institute Visual Workplace
- Board of Examiners, Malcolm Baldrige National Quality Program (2009, 2010)
- Lawrence USD 497 Business/Education Partnership Board of Directors (2000-2002)
- Kansas City Manufacturing Network Advisory Board (2001-2009)

## **Christopher Wilson**

Chris is an instructor in the Flint Hills Technical College Industrial Engineering Technology Program. He grew up in Sedan, Kansas and completed a BSB in Business Administration from Emporia State University.

He has 15 years of supervisory and management experience in manufacturing and has taught at FHTC since 2012. He served three years as District Manager at Ferrellgas in Olathe, Kansas installing, maintaining, and repairing propane systems. He served eight years at Camso in Emporia. Five of those eight years he served as Maintenance Supervisor, overseeing all aspects of plant maintenance. Priorities included preventive maintenance scheduling and completion, downtime tracking, downtime reduction plans and projects, and employee training. At Camso he trained, not just maintenance employees, but all employees, on topics such as Lockout/Tagout, Confined Spaces, Bloodborne Pathogens, Machine Guarding, Crane and Hoist Safety, General Plant Safety (using the DuPont STOP program), Forklift operation and safety, and PPE.

Classes taught by Christopher at FHTC include classroom, lab, and on-line techniques. The Industrial Engineering Technology classes he has taught include Industrial Electricity, Industrial Wiring, Motor Controls, Electrical Troubleshooting, Residential Wiring, Hydraulics and Pneumatics, and Mechanical Principles. He also has taught 2-3 day training workshops on Hydraulics and Pneumatics, Industrial Wiring and Motor Controls, and Residential Wiring.