



INDUSTRY 4.0 CAREER SKILLS TRAINING

Guide to Skills Coverage

FOUNDATIONS OF MANUFACTURING

SAFETY FUNDAMENTALS 77-3202-0000
Introduction to OSHA and Safety Responsibilities
Safety in the Workplace
Personal Protective Equipment (PPE)
Safety Procedures
Production Team Training & Responsibilities
Product Development & Customer Service
Customer Service

SAFETY: LOCKOUT / TAGOUT 77-1070-0000
Acquiring Lockout/Tagout Basics
Attaching Lockout Devices
Completing and Attaching Tagout Devices
Conduct energy control analysis
Perform lockout/tagout procedure
Perform lockout/tagout release

MATH FOR TECHNICIANS I 77-BA01A-0001
Working with Arithmetic and Algebra
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Working with Fractions
Working with Decimals
Working with Percentages
Working with Ratios and Proportions
Working with Systems of Measurement
Working with Geometry
Working with Trigonometry

MATH FOR TECHNICIANS II 77-BA01B-0001
Working with Conversion Formulas
Applying Mechanical Principles
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Calculating Speed Reducer Service Factor
Using Ohm's Law in Series and Parallel Circuits
Using Binary, Binary Coded Decimal (BCD), Hexadecimal and Decimal Numbers
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Calculating Shim Requirements
Selecting Pipe Size

EMPLOYABILITY 77-3097-0000
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Personal Qualities Desirable for the Workplace
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Problem-Solving Techniques
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Business Etiquette and Ethical Computer Behavior
Employer-Employee Relationships
Proper Communication with Diverse Populations
Career Goals
Resumes and Cover Letters
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Potential Employer Interviews
Interviewing Skills

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Identify lines and their functions
Single, multiple, and auxiliary views
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Determine tolerances
Identify thread dimensions
Identify tapers and machined surface symbols
Cutting planes and sections
Geometric dimensions, wear limits and assembly
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Reading plot plans
Reading folding, foundation, and floor plans
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LUBRICATION FOR MAINTENANCE TECHNICIANS 77-BA03-0001
Lubrication Fundamentals
Lubrication Terms
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Identifying General Purpose Greases
Identifying Special Purpose Greases
Applying Lubricating Oils
Applying Lubricating Greases
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Grease Guns
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Electric Chain Oilers

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Screws and Bolts
Threaded Fastener Selection
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Creating and Repairing Threads
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Torque Wrenches
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Washers
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Hook and Loop Fasteners
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HAND TOOLS 77-BA05-0001
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List how hand tools may be misused or abused
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Hex Keys
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Fixed Gauges
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Statistical Process Control
Nominal Dimensions and Tolerance
Parts Inspection and Inspection Reports
Conclusion - Quality Control in Industry

INTRODUCTION TO ADVANCED MANUFACTURING 77-3096-0000
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Understanding the History of Manufacturing
Considering Career Choices
Conducting a Job Search
Preparing a Resume/Writing a Cover Letter
Planning and Staffing a Manufacturing Company
Understanding Product and Strategy Selection
Identifying Manufacturing Processes
Understanding CAD, CAM, CNC
Understanding Statistical Process Control
Understanding Forecasting Software and Computer Simulation Modeling
Understanding the Role of Automation in Manufacturing
Understanding the Role of Flexible Manufacturing Systems
Understanding Computer Integrated Manufacturing
Understanding the Role of Quality Control

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