

SKILL GROUPS CATALOG



BECAUSE YOU CAN'T LIVE LIFE WITHOUT SKILLS



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Printed in the United States of America

Third edition January 2021

This Institution is regulated by:

Office for Career and Technical Schools
10 North Senate Avenue, Suite SE 308
Indianapolis, IN 46204
OCTS@dwd.in.gov
<http://www.in.gov/dwd/2731.htm>

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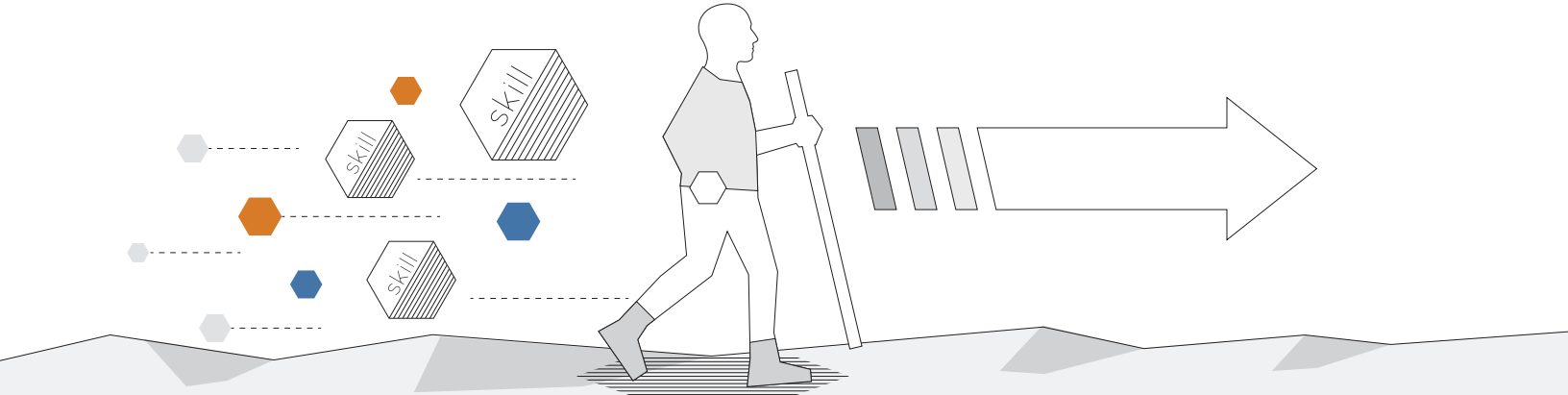
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MADE IN AMERICA

We believe that life is a journey that requires skills, and that skills training should be there when it's needed.

We make skills training accessible to anyone, anytime, anywhere.

We started this company because we think it's sad to see capable people get left behind because they don't have access to the skills training they need.





Since 2009, 180 Skills has been working with companies and educators to create the world's largest library of skills training courses for the manufacturing and logistics sector.

We have also created over 150 employability skills courses that apply to all jobs in every sector.



*Headquartered in
Indianapolis, Indiana*

For more information about 180 Skills, please visit our website at www.180skills.com

The background features a complex geometric design. It consists of several large, overlapping, light gray circles that create a sense of depth and movement. At the base of these circles, there are various shades of gray hexagons, some solid and some outlined, arranged in a pattern that suggests a honeycomb or crystalline structure. A central orange hexagon with a white border contains the number '3'. Dotted lines and thin gray lines connect various points across the composition, adding to the technical or architectural feel of the design.

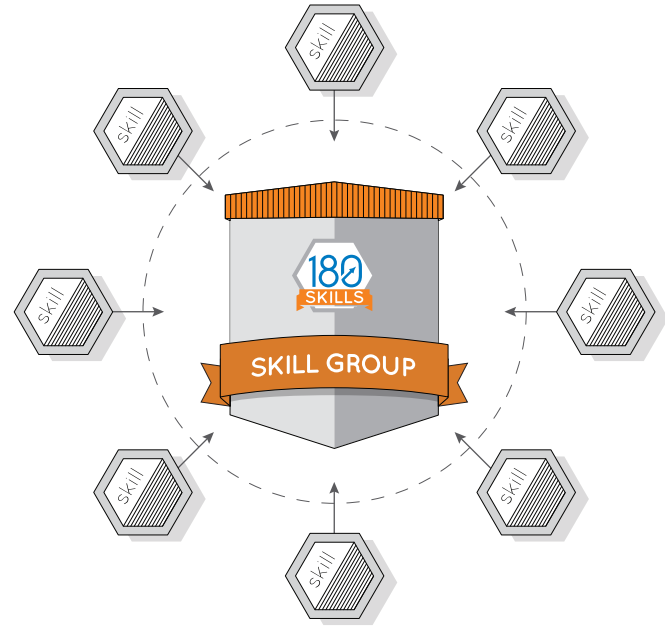
HOW TO USE SKILLS GROUPS

SKILLS GROUPS

Skill Groups allow a learner the flexibility to choose the learning that's right for them and their career journey.

Skill groups are individual skills courses grouped together to help people achieve mastery of a complete skill set.

There are 150 discrete skills you can achieve including technical, employability, soft skills, career building, and software skills.

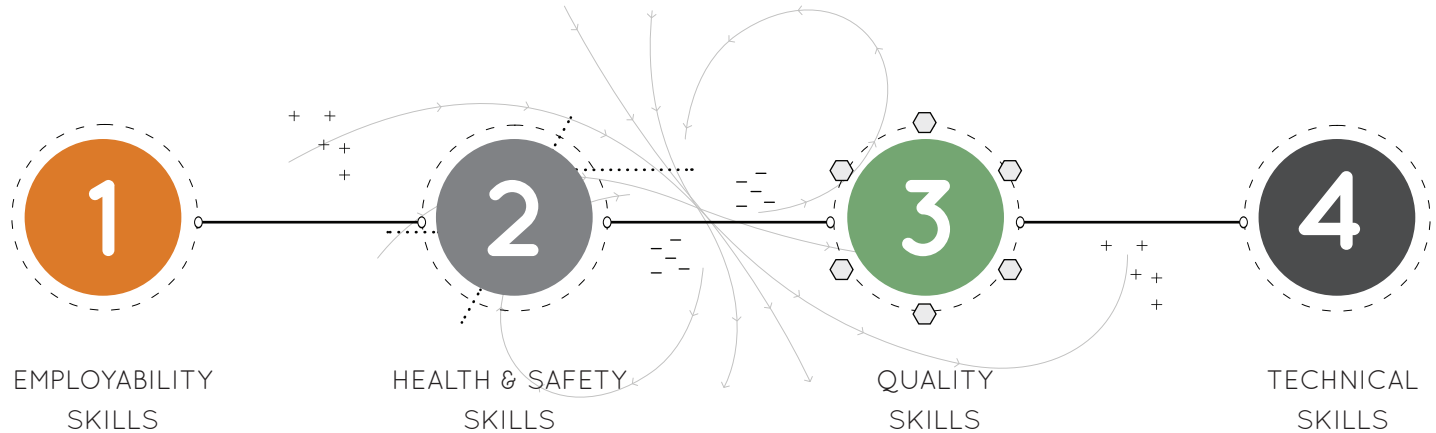


SKILLS GROUPS

Our Skills Group catalog contains over 150 skill groups.

We recognize that this is a lot to digest, and determining which skills groups you need can be overwhelming.

To make things easier, we have divided our skills groups into four categories:



EMPLOYABILITY SKILLS GROUPS

Employability skill groups cover a broad range of important, non-technical skills that are listed by employers as essential to job performance.

These include skills like math, career building, computer, and soft skills.

CAREER BUILDING



PERSONAL FINANCES



MATH



GEOMETRY



MICROSOFT OFFICE SKILLS



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EMPLOYABILITY SKILLS GROUPS

Employability skill groups cover a broad range of important, non-technical skills that are listed by employers as essential to job performance.

These include skills like math, career building, computer, and soft skills.



COMMUNICATION



COMMUNICATING WITH OTHERS



DEALING WITH CONFLICT



TECHNICAL WRITING

TEAM BUILDING



WORKING ON A TEAM



TEAM DYNAMICS



BUILDING EFFECTIVE TEAMS



TEAMWORK AND TRAINING

WORKPLACE SKILLS



WORKPLACE SKILLS

CUSTOMER SERVICE



CUSTOMER SERVICE



ADVANCED CUSTOMER SERVICE

TIME MANAGEMENT



TIME MANAGEMENT

LIFE SKILLS



LIFE SKILLS

STRESS MANAGEMENT



STRESS MANAGEMENT

HEALTH & SAFETY SKILLS GROUPS

Health & safety skill groups include the basic OSHA skills required for employees in an industrial environment.

These skills will keep you and your coworkers safe.

HEALTH & SAFETY



QUALITY SKILLS GROUPS

Quality skills groups are aligned with the global quality management standards of ISO-9001, TS-16949 and Six Sigma.

These skills help companies produce world-class products

QUALITY & CONTINUOUS IMPROVEMENT



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TECHNICAL SKILLS GROUPS

Technical skill groups are aligned with real jobs in manufacturing and logistics.

These skills give you the knowledge required to get your first job, or to advance in your current position.



TECHNICAL



SKILLS GROUP NUMBERING

THE SKILLS GROUP NUMBERING SYSTEM HAS FOUR LEVELS

100

100 level skills groups are where learners begin their journey. These include the foundational knowledge and skills required for success in a technical career.

200

200 level skills groups are intermediate-level courses that include tools, equipment, processes and knowledge required to master technical tasks.

300

300 level skills groups are advanced-level skill and knowledge-based courses.

400

400 level skills groups are project and application-based courses.

These skills groups allow the learner to apply the knowledge they have acquired in the 1000 - 3000 level skills areas.

Many of these skills courses include full project-based learning that can also be performed in a hands-on, instructor-led environment.

SKILLS GROUP CATALOG

EMPLOYABILITY SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CAR-101	Searching for a Job	Kicking Off Your Job Search.....	CAR-1001
		Finding Jobs to Apply For	CAR-1002
		Networking.....	CAR-1003
CAR-102	Resumes and Job Applications	Completing an Employment Application.....	CAR-1004
		Creating Your Resume.....	CAR-1005
		Crafting a Cover Letter.....	CAR-1006
CAR-103	Interviewing	Understanding the Interview Process	CAR-1007
		Making a Positive Impression	CAR-1008
		Responding to Interview Questions	CAR-1009
		Addressing Special Interview Concerns	CAR-1010
		After the Interview.....	CAR-1011
CAR-104	Keeping a Job	Surviving Your First Day on the Job	CAR-1012
		Turning a Job into a Career.....	CAR-1013



EMPLOYABILITY SKILLS

SKILL GROUP
NUMBER

SKILL GROUP
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SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

CAR-104

Personal Branding

What is a Personal Branding.....CAR-1014
Define Your BrandCAR-1015
Develop Your Brand MessagesCAR-1016
Implement Your Brand Strategy.....CAR-1017

CAR-201

**Manufacturing as
a Career**

Manufacturing - A Future Worth Exploring.....CAR-2001
Manufacturing - Components of Production.....CAR-2002
Manufacturing - Credentials and CompetenciesCAR-2003
Manufacturing - Career Planning and Resources.....CAR-2004



EMPLOYABILITY SKILLS

SKILL GROUP
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SKILL GROUP
NAME

SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

COM-101

**Communicating
with Others**

Introduction to CommunicationCOM-1001
Effective CommunicationCOM-1002
Verbal CommunicationCOM-1003
Written CommunicationCOM-1004
Nonverbal CommunicationCOM-1005
Listening SkillsCOM-1006
Workplace CommunicationCOM-1007

COM-201

Dealing With Conflict

Understanding ConflictCOM-2001
Communication SkillsCOM-2002
Managing ConflictCOM-2003

COM-202

Technical Writing

Introduction to Technical WritingCOM-2004
Successful DocumentationCOM-2005



EMPLOYABILITY SKILLS

SKILL GROUP
NUMBER

SKILL GROUP
NAME

SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

CUS-101

Customer Service

Focusing on Your CustomersCUS-1001
Providing Friendly, Courteous, and Efficient ServiceCUS-1002
Communicating Effectively with CustomersCUS-1003
Identifying and Meeting Customer Needs.....CUS-1004
Building Customer RelationshipsCUS-1005

CUS-102

**Advanced Customer
Service**

Respecting Diversity in Your CustomersCUS-1006
Better Serving Customers with DisabilitiesCUS-1007
Dealing with Difficult CustomersCUS-1008
Responding to Customer ComplaintsCUS-1009
Managing Conflict with Internal CustomersCUS-1010



EMPLOYABILITY SKILLS

SKILL GROUP
NUMBER

SKILL GROUP
NAME

SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

DIV-101 **Diversity and Inclusion** Introduction to Diversity, Equity, and InclusionDIV-1001



EMPLOYABILITY SKILLS

SKILL GROUP
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SKILL GROUP
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SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

GEO-101

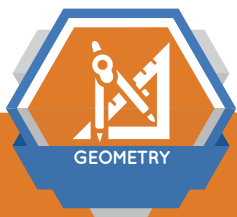
Geometry

Introduction to Geometry.....GEO-1001
Basic Building Blocks of Geometry.....GEO-1002
AnglesGEO-1003
LinesGEO-1004
PolygonsGEO-1005
Triangles.....GEO-1006

GEO-102

**Intermediate
Geometry**

Quadrilaterals.....GEO-1007
Circles.....GEO-1008
Three-dimensional Shapes.....GEO-1009
Coordinate Geometry.....GEO-1010
Transformation Geometry.....GEO-1011



EMPLOYABILITY SKILLS

SKILL GROUP
NUMBER

SKILL GROUP
NAME

SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

LIF-101

Goal Setting

Identifying Your Life Goals.....LIF-1001



EMPLOYABILITY SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
MTH-101	Basic Math	Introduction to Basic Math	MTH-1001
		Arithmetic Operations.....	MTH-1002
MTH-102	Fractions and Decimals	Introduction to Fractions	MTH-1004
		Working with Fractions.....	MTH-1005
		Decimal Numbers	MTH-1006
MTH-103	Intermediate Math	Numbers and the Number Line	MTH-1003
		Positive and Negative Numbers.....	MTH-1007
		Cartesian Coordinates	MTH-1008
		The Metric System	MTH-1009



EMPLOYABILITY SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
MSO-101	Microsoft Excel®	Getting Started with Excel	MSO-1001
		Entering Text and Values	MSO-1002
		Formatting Data	MSO-1003
		Formulas and Functions.....	MSO-1004
		Working with Dates and Times	MSO-1005
MSO-102	Intermediate Excel®	Working with Data Tables.....	MSO-1006
		Displaying Data in Charts.....	MSO-1007
		Printing a Worksheet	MSO-1008
		Managing Worksheets	MSO-1009
		Managing Workbooks	MSO-1010
		Securing Worksheets and Workbooks	MSO-1011



EMPLOYABILITY SKILLS

SKILL GROUP
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SKILLS COURSE TITLE

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MSO-103

Microsoft Word®

Getting Started with Word.....MSO-1012
Creating a DocumentMSO-1013
Font FormattingMSO-1014
Paragraph Formatting.....MSO-1015
Checking the Spelling and Grammar.....MSO-1016

MSO-104

**Intermediate
Word®**

Indenting Text.....MSO-1017
Applying Styles and ThemesMSO-1018
Working with Images.....MSO-1019
Working with Tables.....MSO-1020
Using Document Layout OptionsMSO-1021
Using Find and Replace.....MSO-1022
Managing DocumentsMSO-1023



EMPLOYABILITY SKILLS

SKILL GROUP
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SKILL GROUP
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SKILLS COURSE TITLE

SKILLS COURSE
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MSO-105

**Microsoft
Outlook® Basics**

Getting Started with OutlookMSO-1024
Sending Email.....MSO-1025
Receiving Email.....MSO-1026
Changing the Screen LayoutMSO-1027
Using the CalendarMSO-1028

MSO-106

**Intermediate
Microsoft Outlook®**

Creating and Managing Contacts.....MSO-1029
Using the Task ListMSO-1030
Printing with OutlookMSO-1031



EMPLOYABILITY SKILLS

SKILL GROUP
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SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

PFI-101

**Managing Your
Money**

CompensationPFI-1001
BankingPFI-1004
TaxesPFI-1011
Credit CardsPFI-1005
LoansPFI-1006
Credit Reports and Credit ScoresPFI-1007
Record KeepingPFI-1013

PFI-102

**Money Budgets
and Goals**

Goal SettingPFI-1002
Budgeting.....PFI-1003

PFI-103

Retirement Planning

Retirement PlanningPFI-1008



EMPLOYABILITY SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
PFI-104	Investing	Investing.....	PFI-1009
PFI-105	Insurance	Insurance.....	PFI-1010
PFI-106	Estate Planning	Estate Planning.....	PFI-1012



EMPLOYABILITY SKILLS

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SKILLS COURSE TITLE

SKILLS COURSE
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STR-101

Stress Management

Dealing with Stress.....STR-1001

Coping with On-the-job Stress.....STR-1002



EMPLOYABILITY SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
STU-101	180 Skills Orientation	Greatest Day Ever.....	STU-1001
STU-102	Using a Learning Management System	How to Take a Course..... How to Navigate the LMS	STU-1002 STU-1003
STU-103	Learning Online	Tips for Succeeding in Online Learning.....	STU-1004



EMPLOYABILITY SKILLS

SKILL GROUP
NUMBER

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SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

TEA-101

**Working on
a Team**

Working in a GroupTEA-1001
Group CommunicationTEA-1002
Effective CollaborationTEA-1003
Life Stages of a TeamTEA-1004
MeetingTEA-1005

TEA-102

Team Dynamics

Diversity.....TEA-1006
Creativity.....TEA-1007
Problem SolvingTEA-1008
Decision MakingTEA-1009
Conflict Management.....TEA-1010
Leadership.....TEA-1011
Virtual GroupsTEA-1012



EMPLOYABILITY SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
TEA-103	Building Effective Teams	Teamwork	TEA-1013
		Team Building	TEA-1014
TEA-104	Teamwork & Training	Team Development	TEA-1015
		Team Problem Solving	TEA-1016
		Training and Development	TEA-1017



EMPLOYABILITY SKILLS

SKILL GROUP
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SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

TIM-101

Time Management

Managing Your Time	TIM-1001
Making a List and Checking It Twice	TIM-1003
Planning Your Day.....	TIM-1004
Adopting Timesaving Strategies.....	TIM-1005
Getting Organized	TIM-1006
Ending Procrastination.....	TIM-1007
Taking Advantage of Technology	TIM-1008



EMPLOYABILITY SKILLS

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SKILLS COURSE
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WRK-101

Workplace Skills

Handling Dangerous Workplace Situations.....WRK-1001



HEALTH & SAFETY SKILLS

SKILL GROUP
NUMBER

SKILL GROUP
NAME

SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

SAF-101

**Introduction
to Safety**

Introduction to OSHA.....SAF-1001
Making Work a Safer Place.....SAF-1002
Help! What to Do in an Emergency.....SAF-1003

SAF-102

**Personal Protective
Equipment Safety**

Personal Protective Equipment.....SAF-1004
Eye and Face Protection.....SAF-1005
Head Protection.....SAF-1006
Foot and Leg Protection.....SAF-1007
Hand and Arm Protection.....SAF-1008
Body Protection.....SAF-1009
Hearing Protection.....SAF-1010
Respiratory Protection.....SAF-1011



HEALTH & SAFETY SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
SAF-103	Hazardous Material Safety	Hazardous Materials.....	SAF-1012
		HazCom	SAF-1013
		Hazardous Waste.....	SAF-1014
		Hazard Material Storage.....	SAF-1015
SAF-104	Workplace Safety	Work Area Safety.....	SAF-1016
		Permit-Related Safety	SAF-1017
		Fall Prevention	SAF-1018
		Ladder Safety.....	SAF-1019
SAF-105	Electrical and Fire Safety	Electrical Safety	SAF-1020
		Lockout/Tagout.....	SAF-1021
		Fire Safety.....	SAF-1022
		Fire Extinguishers	SAF-1023



HEALTH & SAFETY

HEALTH & SAFETY SKILLS

SKILL GROUP
NUMBER

SKILL GROUP
NAME

SKILLS COURSE TITLE

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NUMBER

SAF-106

**Material Handling
Safety**

Material Handling BasicsSAF-1024
Powered Industrial Trucks.....SAF-1025
Crane and Rigging Safety.....SAF-1026

SAF-107

**Tool and Machine
Safety**

Hand Tool Safety.....SAF-1027
Power Tool SafetySAF-1028
Sheet Metal and Compressed Gas SafetySAF-1029
Machine SafetySAF-1030
Safety Devices.....SAF-1031



CONTINUOUS IMPROVEMENT SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
LEA-101	Introduction to Lean Manufacturing	Lean Principles.....	LEA-1001
		The History of Lean Manufacturing	LEA-1002
LEA-102	Workplace Organization	Workplace Organization.....	LEA-1003
		S1: Sort.....	LEA-1004
		S2: Straighten	LEA-1005
		S3: Shine	LEA-1006
		S4: Standardize	LEA-1007
S5: Sustain.....	LEA-1008		



CONTINUOUS IMPROVEMENT SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
QUA-101	Quality Systems	Introduction to Quality.....	QUA-1001
		ISO 9000	QUA-1002
		Standards Organizations.....	QUA-1003
		Quality Organizations.....	QUA-1004
		Basic Quality Roles and Responsibilities.....	QUA-1005
QUA-102	Quality Management	Quality Concepts.....	QUA-1006
		The Cost of Quality.....	QUA-1007
		Managing Quality.....	QUA-1008
		Quality Documents	QUA-1009
		Corrective and Preventive Action.....	QUA-1010
QUA-103	Introduction to Statistical Process Control	Introduction to SPC	QUA-1011
		Probability and Variation.....	QUA-1012
		The Control Chart.....	QUA-1013



CONTINUOUS IMPROVEMENT SKILLS

SKILL GROUP
NUMBER

SKILL GROUP
NAME

SKILLS COURSE TITLE

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NUMBER

QUA-201

**Advanced Statistical
Process Control**

Control Chart AnalysisQUA-2001
Process Capability.....QUA-2002
Problem Solving ToolsQUA-2003
Problem SolvingQUA-2004



CONTINUOUS IMPROVEMENT SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
SIX-301	Six Sigma and the Organization	Six Sigma and the Organization	SIX-3001
		Lean Principles.....	SIX-3002
		Design for Six Sigma	SIX-3003
SIX-302	Six Sigma Define	Process Elements for Projects	SIX-3004
		Project Management Basics	SIX-3005
		Management and Planning Tools.....	SIX-3006
		Business Results for Improvement Projects	SIX-3007
		Project Team Dynamics and Performance	SIX-3008
		Problem Solving Tools	SIX-3009



CONTINUOUS IMPROVEMENT SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
SIX-303	Six Sigma Measure	Process Analysis and Documentation	SIX-3010
		Probability and Statistics.....	SIX-3011
		Collecting and Summarizing Data.....	SIX-3012
		Probability Distributions.....	SIX-3013
		Measurement System Analysis	SIX-3014
		Process Capability Performance.....	SIX-3015
SIX-304	Six Sigma Analyze	Exploratory Data Analysis.....	SIX-3016
		Hypotheses Test Basics.....	SIX-3017
		Hypotheses Tests	SIX-3018
SIX-305	Six Sigma Improve and Control	Design of Experiments	SIX-3019
		SPC.....	SIX-3020
		Implement and Validate.....	SIX-3021
		Control Plans	SIX-3022



TECHNICAL SKILLS

SKILL GROUP
NUMBER

SKILL GROUP
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SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

AER-101

**Aircraft
Familiarization**

The History of Aviation.....	AER-1001
Primary Assemblies of an Aircraft	AER-1002
Principles of Flight	AER-1003
Airplane Control.....	AER-1004
Aircraft Configuration	AER-1005
Aircraft Materials	AER-1006
Aircraft Construction	AER-1007
Aircraft Corrosion.....	AER-1008
Aircraft Regulations.....	AER-1009



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
AER-201	Aerospace Sealing and Safety	Introduction to Sealing	AER-2001
		Chemical Safety.....	AER-2002
		Preparing the Surface	AER-2003
		Selecting the Right Sealant.....	AER-2004
		Applying the Sealant	AER-2005
AER-202	Aerospace Electrical Bond and Ground	Electricity and the Airplane	AER-2006
AER-203	Aerospace Wire Bundle Basics	Wiring in Airplanes	AER-2007
		Wire and Cable Basics	AER-2008
		Wire, Cable, and Wire Bundle Markings	AER-2009
		Circular Connectors and Contacts	AER-2010
		Installing a Connector.....	AER-2011
		MTC Connectors.....	AER-2012
		Tying Wire Bundles	AER-2013



TECHNICAL SKILLS

SKILL GROUP
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AER-301

Aircraft Systems

Flight Control Systems.....	AER-3001
Mechanical Systems.....	AER-3002
Landing Gear Systems.....	AER-3003
Aerospace Hydraulic Systems.....	AER-3004
Aerospace Pneumatic Systems.....	AER-3005
Electrical Systems.....	AER-3006
Propulsion Systems.....	AER-3007
Fuel Systems.....	AER-3008
Avionics Systems.....	AER-3009
Anti-Icing and De-Icing Systems.....	AER-3010
Environmental Systems.....	AER-3011
Window and Door Systems.....	AER-3012
Commercial Aircraft Structures.....	AER-3013



TECHNICAL SKILLS

SKILL GROUP
NUMBER

SKILL GROUP
NAME

SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

AER-401

**Basic Drilling
and Riveting**

Marking Fastener Locations for Drilling ProjectAER-4001
Setting Up the Drill Motor.....AER-4002
Drilling Pilot Holes and Enlarging HolesAER-4003
Deburring.....AER-4004
Driving Protruding Head RivetsAER-4005

AER-402

**Installing Advanced
Fasteners Project**

Assembly Preparation for Advanced Fasteners ProjectAER-4006
Installing Nut Plates.....AER-4007
Compression Riveting.....AER-4008
Installing BoltsAER-4009
Securing Bolts with LockwireAER-4010



TECHNICAL SKILLS

SKILL GROUP
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SKILL GROUP
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SKILLS COURSE
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AER-403

**Countersinking and
Riveting Project**

Marking Fastener Locations for CountersinkingAER-4011
and Flush Riveting Project
Setting Up the Assembly and DrillAER-4012
Drilling, Enlarging, and Deburring Holes.....AER-4013
Setting the Countersink Tool (project)AER-4014
Countersinking (project).....AER-4015
Flush Riveting.....AER-4016

AER-404

**90 Degree Drilling
Project**

Assembly Preparation for 90 Degree Drilling ProjectAER-4017
Installing 5/16 Inch Hi-Loks.....AER-4018
Installing 3/16 Inch Hi-LoksAER-4019
Installing Protruding Head Rivets.....AER-4020
Removing Rivets in the 90 Degree Drilling ProjectAER-4021
Removing 5/16 Inch Hi-Loks.....AER-4022



TECHNICAL SKILLS

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AER-405

**Drilling Titanium
Project**

Drilling Titanium	AER-4023
Marking Hole Locations for Drilling Titanium	AER-4024
Drilling Pilot Holes in Titanium.....	AER-4025
Drilling and Enlarging Holes in Row JD2	AER-4026
Enlarging Row JD7.....	AER-4027
Enlarging Rows JD4, JD5, and JD6	AER-4028
Enlarging Rows JD1 and JD3	AER-4029
Enlarging Row JD8	AER-4030
Chamfering.....	AER-4031
Edge Breaking and Deburring	AER-4032



TECHNICAL SKILLS

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SKILL GROUP
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SKILLS COURSE
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AER-406

**Wing Structure
Project**

Tools for Wing Structure ProjectAER-4033
Preparing the Assembly for the Wing Structure ProjectAER-4034
Countersinking and Fillet Relief.....AER-4035
Installing Fasteners.....AER-4036

AER-407

**Fuselage Skin
Assembly Project**

Preparing the Assembly for the Fuselage Skin Assembly.....AER-4037
Drilling the Skin Panels.....AER-4038
Preparing the Doubler.....AER-4039
CountersinkingAER-4040
Assembly Finish and Fastener Installation.....AER-4041
Removing Rivets in the Fuselage Skin Assembly.....AER-4042



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
AER-408	Sealant Applicant Processes Mechanical Project	Sealing Basics.....	AER-4043
		Fay and Prepack Sealing	AER-4044
		Fillet and Injection Sealing	AER-4045
		Cap Sealing	AER-4046
AER-409	Aerospace Electrical Bond and Ground Project	Electrical Bond and Ground Introduction	AER-4047
		Pre-installed Ground Studs.....	AER-4048
		Electrical Fay Surface Bonds	AER-4049
		Direct Ground Stud.....	AER-4050
		Fillet Sealing a Ground Stud	AER-4051
Fay Sealing a Direct Ground Stud	AER-4052		



TECHNICAL SKILLS

SKILL GROUP
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SKILL GROUP
NAME

SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

AER-410

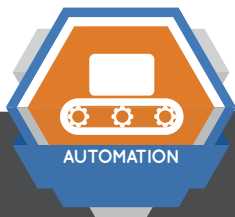
**Aerospace Wire
Bundle Installation
Project**

Clearance and SeparationAER-4053
Minimum Bend RadiusAER-4054
Clamping Wire Bundles - Part One.....AER-4055
Tying Wire Bundles for the Wire BundleAER-4056
Installation Project
Project Installation PlanAER-4057
Project and Drawing ReviewAER-4058
Pre-routing Wire Bundles.....AER-4059
Clamping Wire Bundles - Part TwoAER-4060
Torque and Inspection.....AER-4061



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
AUT-101	Introduction to Industrial Automation	Introduction to Automation	AUT-1001
		Automated Process	AUT-1002
		Automated System.....	AUT-1003
AUT-102	Process Controls	Introduction to Process Controls.....	AUT-2001
		Process Control Systems.....	AUT-2002
		Set Point/Comparator	AUT-2003
		Controller (PID Control)	AUT-2004
		Multivariate Processes.....	AUT-2005



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CNC-101	Introduction to Machining	Introduction to Machining	CNC-1001
		Machine Tools	CNC-1002
		CNC Controllers.....	CNC-1003
		Machining Personnel	CNC-1004
		Facility Layout	CNC-1005
CNC-203	CNC Machine Lubricants	CNC Machine Lubricants	CNC-2011



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CNC-201	CNC Horizontal Lathe	Components of a CNC Lathe.....	CNC-2001
		Movements of a CNC Lathe.....	CNC-2002
		Workholding Devices and Tooling for a CNC Lathe.....	CNC-2003
		The CNC Controller for a CNC Lathe	CNC-2004
		Auxiliary Systems for a CNC Lathe.....	CNC-2005
CNC-401	CNC Horizontal Lathe Applications	Maintenance Tasks for a CNC Lathe	CNC-4001
		Power on the CNC Lathe.....	CNC-4002
		Move the Axes by Rotating the Jog Handle	CNC-4003
		on a CNC Lathe	
		Home the Axes on a CNC Lathe	CNC-4004
		Select a Part Program from Memory on a CNC Lathe.....	CNC-4005
		Start the Part Program Safely on a CNC Lathe	CNC-4006
		Interrupt Automatic Operation on a CNC Lathe	CNC-4007
		Adjust a Tool Wear Offset on a CNC Lathe	CNC-4008
Power Off the CNC Lathe	CNC-4009		



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SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CNC-403	CNC Lathe Programs	CNC Programming Procedure for a CNC Lathe	CNC-4010
		CNC Program Structure for a CNC Lathe	CNC-4011
		CNC Addresses for a CNC Lathe	CNC-4012
		CNC Lathe Commands	CNC-4013
		Organizing a CNC Program for a CNC Lathe	CNC-4014
CNC-202	CNC Vertical Machining Center	Components of a CNC Machining Center.....	CNC-2006
		CNC Machining Center Movements	CNC-2007
		Workpiece and Tool Holding Devices	CNC-2008
		for a CNC Machining Center	
		The CNC Controller for a CNC Machining Center	CNC-2009
Auxiliary Systems for a CNC Machining Center.....	CNC-2010		



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CNC-402

**CNC Vertical
Machining Center
Applications**

Maintenance Tasks for a CNC Machining Center.....CNC-4015
 Power on the CNC Machining Center.....CNC-4016
 Move the Axes by Rotating the Jog HandleCNC-4017
 on a CNC Machining Center
 Home the Axes on a CNC Machining Center.....CNC-4018
 Select a Part Program from Memory on a CNCCNC-4019
 Machining Center
 Start the Part Program Safely on a CNCCNC-4020
 Machining Center
 Interrupt Automatic Operation on a CNCCNC-4021
 Machining Center
 Adjust a Tool Wear Offset on a CNCCNC-4022
 Machining Center
 Power Off the CNC Machining CenterCNC-4023



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SKILLS COURSE
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CNC-404

**CNC Machining
Center Programs**

CNC Programming Procedure for a CNCCNC-4024
Machining Center
CNC Program Structure for a CNCCNC-4025
Machining Center
CNC Addresses for a CNC Machining Center.....CNC-4026
CNC Machining Center CommandsCNC-4027
Organizing a CNC Program for a CNC Machining Center CNC-4028



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CMP-101	Introduction to Composites	Background and History of Composites	CMP-1001
		Composite Industries and Products	CMP-1002
		Advantages and Disadvantages of Composites	CMP-1003
		Safety and Hazards of Composites	CMP-1004
CMP-102	Composites Manufacturing Facilities	Facility Layout	CMP-1005
		Non-controlled Contamination Areas.....	CMP-1006
		Lay-up Area	CMP-1007
		Curing Area.....	CMP-1008



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CMP-201	Materials Used in Composites Manufacturing	Fiber Based Composites	CMP-2001
		Fibers, Tapes and Fabrics	CMP-2002
		Glass and Carbon Fibers	CMP-2003
		Matrix Types and Properties	CMP-2004
		Curing Process	CMP-2005
		Honeycomb Core Materials	CMP-2006
		Material Compatibility	CMP-2007
		Galvanic Reactivity.....	CMP-2008
		Core Potting Compounds.....	CMP-2009
CMP-202	Composite Material Storage	Fiber Material Storage	CMP-2010
		Controlled Contamination Areas	CMP-2011



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CMP-203

**Tools Used In
Composite
Manufacturing**

Local Exhaust Ventilation	CMP-2012
Forming Tools.....	CMP-2013
Coefficient of Thermal Expansion.....	CMP-2014
Forming Tool Inspection.....	CMP-2015
Forming Tool Cleaning	CMP-2016
Forming Tool Storage.....	CMP-2017
Rollers and Sweeps.....	CMP-2018
Overhead Laser System.....	CMP-2019



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CMP-301	Composite Material Kitting	Kitting with a sheeter.....	CMP-3001
		Kitting by Hand	CMP-3002
		Kitting with Automated Machines	CMP-3003
CMP-302	Composite Part Lay-up and Bagging	Ply Balancing	CMP-3004
		Material splicing	CMP-3005
		Wrinkles and Gaps.....	CMP-3006
		Pockets and Voids.....	CMP-3007
		Radius Filler Fabrication by Hand	CMP-3008
		Advanced Bagging	CMP-3009
		Bagging and Lay-up Equipment	CMP-3010
		Preparation for the Lay-up Process.....	CMP-3011
		Cure Cycle Controllers -Temperature Controls	CMP-3012
Thermocouple Science	CMP-3013		



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CMP-303	Inspecting Composite Parts	Introduction to Inspection of Composites.....	CMP-3014
		Visual Inspection for Composites.....	CMP-3015
		Ultrasonic Inspection for Composites.....	CMP-3016
		Tap Inspection for Composites.....	CMP-3017
CMP-304	Composite Part Damage and Repair	Composite Repairs.....	CMP-3018
		Aircraft Damage	CMP-3019
		Damage Assessment	CMP-3020
		Repair Tools and Materials.....	CMP-3021



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SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CMP-401	Composite Layup Projects	Unidirectional 4 Ply Lay-up.....	CMP-4001
		Carbon 8 Ply Lay-up with Core	CMP-4002
		Fiberglass 6 Ply Wet Lay-up	CMP-4003
CMP-402	Drilling Composites Project	Drilling Composite Material.....	CMP-4004
		Marking Hole Locations	CMP-4005
		Drilling Pilot Holes in Titanium.....	CMP-4006
		Drilling Row JD3	CMP-4007
		Drilling Row JD7.....	CMP-4008
		Enlarging Holes in Rows JD1 and JD5.....	CMP-4009
		Enlarging Holes in Rows JD2 and JD6	CMP-4010
		Enlarging Holes in Row JD4	CMP-4011
CMP-403	Composite Part Damage and Repair Project	Surface Damage Assessment	CMP-4012
		Surface Damage Repair	CMP-4013
		Disbonding Damage Assessment.....	CMP-4014
		Disbonding Damage Repair.....	CMP-4015



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
CUT-201	Drill Bits	Drill Bits	CUT-2001
CUT-202	Drill Guides and Drill Stops	Drill Guides and Drill Stops	CUT-2002
CUT-203	Countersinking Tools	Countersinking Tools.....	CUT-2003
CUT-204	Threads, Taps and Dies	Threads..... Taps..... Hand Tapping..... Threading Dies.....	CUT-2004 CUT-2005 CUT-2006 CUT-2007
CUT-205	Lubricants and Cutting Fluids	Cutting Fluids.....	CUT-2008
CUT-206	Cutting Tools for Metalworking	Cutting Tool Materials..... Indexable Tool Holders..... Inserts	CUT-2009 CUT-2010 CUT-2011
		Solid Cutting Tools	CUT-2012



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ELE-101

**Introduction to
Electricity**

Production of Electricity.....ELE-1001
Transmission and Distribution of Electricity.....ELE-1002
Uses of Electricity.....ELE-1003
Atomic StructureELE-1004
Electrical Circuits.....ELE-1005
Electrical Current.....ELE-1006
Voltage.....ELE-1007
Electrical PowerELE-1008
Resistance.....ELE-1009
Ohm's Law.....ELE-1010
Watt's Law.....ELE-1011

ELE-102

DC Electricity

Direct Current.....ELE-1012
Batteries.....ELE-1013
Circuit AnalysisELE-1014



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
ELE-103	AC Electricity	Electromagnetism	ELE-1015
		AC Waveform Generation	ELE-1016
		Electromagnetic Devices	ELE-1017
		Transformers	ELE-1018
		Capacitors	ELE-1019
ELE-104	Solid State Electricity	Semiconductors.....	ELE-1020
		Solid State Devices	ELE-1021



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
ELE-201	Introduction to Wiring	Wires, Connectors, and Circuit Protection	ELE-2001
		Connecting Transformers.....	ELE-2002
ELE-202	Introduction to Electric Motors	DC Motors	ELE-2003
		AC Single-Phase Motors	ELE-2004
		Three-Phase AC Motors	ELE-2005
ELE-203	Electrical Connectors	Electrical Connectors and Fasteners	ELE-2006
ELE-204	Fiber Optics	Fiber Optics and Light	ELE-2007
		Manufacturing Optical Fiber	ELE-2008
		Fiber Optic Cable.....	ELE-2009
		Handling Fiber Optic Cable.....	ELE-2010
		Quality and Safety.....	ELE-2011



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
ELE-205	Sensor Technology	Introduction to Sensors Technology	ELE-2012
		Sensor Technology.....	ELE-2013
		Proximity Sensors	ELE-2014
		Position, Speed, and Acceleration Sensors.....	ELE-2015
		Industrial Process Sensors	ELE-2016
		Advanced Sensors	ELE-2017
ELE-206	Electrical Hand Tools	Hand Tools for Electrical Wiring	ELE-2018
ELE-207	Electrical Measurement Conversion	Electrical Measurement and Unit Conversion.....	ELE-2019
ELE-208	Electrical Resistance Test Equipment	Resistance Test Equipment	ELE-2020
		The Fluke® Multimeter.....	ELE-2021
		The Biddle® Ohmmeter.....	ELE-2022
		The Avtron® Ohmmeter	ELE-2023
		The Hewlett Packard® Milliohmmeter	ELE-2024
		The BCD M1® Ohmmeter	ELE-2025



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
ELE-301	Crimping Terminals and Splices	Terminals and Splices	ELE-4001
		Crimping	ELE-4002
		Crimping a Terminal.....	ELE-4003
		Crimping a Pre-insulated Splice.....	ELE-4004
ELE-302	Assembly of Coaxial Connectors	Coaxial Cable	ELE-4005
		Coaxial Connectors	ELE-4006
		Coaxial Connector Tools	ELE-4007
		Coaxial Connector Assembly.....	ELE-4008



TECHNICAL SKILLS

SKILL GROUP
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SKILL GROUP
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SKILLS COURSE
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DWG-101

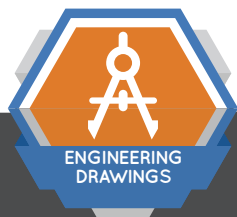
**Blueprint Reading
Fundamentals**

Introduction to Blueprints.....DWG-1001
Engineering Drawing Terminology.....DWG-1002
Engineering Drawing Views.....DWG-1003
Engineering Drawing LinesDWG-1004
Dimensions and Tolerances.....DWG-1005

DWG-102

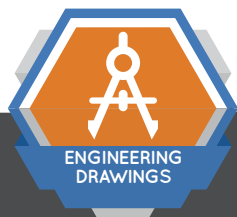
**Blueprints and
Picture Sheets
for Aerospace**

Aerospace Introduction to Blueprints.....DWG-1006
Blueprint Terminology.....DWG-1007
Blueprint ViewsDWG-1008
Blueprint Lines.....DWG-1009
Blueprint Dimensions and TolerancesDWG-1010
Blueprint SymbolsDWG-1011



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
DWG-201	Advanced Blueprint Reading	Geometric Dimensions and Tolerances	DWG-2001
		Assemblies and Fits	DWG-2002
		Threads and Fasteners	DWG-2003
DWG-202	Aerospace Wire Installation Drawings	Engineering Drawing Review	DWG-2004
		Wire Bundle Installation Paperwork	DWG-2005
		Electrical Production Illustrations	DWG-2006
DWG-203	Composite Engineering Drawings and Instructions	Engineering Communication	DWG-2007
		Composite Engineering Drawings	DWG-2008
		Work Instructions.....	DWG-2009



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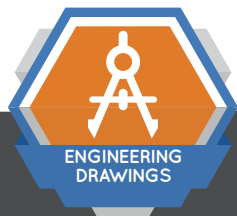
SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

DWG-301

**Geometric
Dimensioning
and Tolerancing**

Introduction to GD&T.....	DWG-3001
GD&T Terms and Symbols.....	DWG-3002
Rules of GD&T.....	DWG-3003
Geometric Tolerances.....	DWG-3004
Datums.....	DWG-3005
Form Tolerances.....	DWG-3006
Profile Tolerances.....	DWG-3007
Orientation Tolerances.....	DWG-3008
Runout Tolerances.....	DWG-3009
Location Tolerances.....	DWG-3010



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FAS-101

Fasteners

Temporary Fasteners.....	FAS-2001
Rivets.....	FAS-2002
Bolts, Screws, and Washers	FAS-2003
Threaded Inserts	FAS-2004
Hi-Loks.....	FAS-2005
Lockbolts.....	FAS-2006
Nut Plates.....	FAS-2007
Blind Rivets	FAS-2008
Identifying Fasteners.....	FAS-2009
Fasteners and Fits	FAS-2010
Securing and Lockwiring Fasteners	FAS-2011
Torque Tools	FAS-2012



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HAN-101

Hand Tools

Files, Hand Reamers, and Lapping Tools.....HAN-2001
Hammers, Punches, and ChiselsHAN-2002
Pliers and Ratchets.....HAN-2003
Scribes, Optical Center Finders, and Drill BlocksHAN-2004



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
HYD-101	Introduction to Hydraulics	Introduction to Hydraulics.....	HYD-1001
		Hydraulic Theory.....	HYD-1002
		Hydraulic Fluids	HYD-1003
		Hydraulic Systems.....	HYD-1004
HYD-201	Components of a Hydraulic System	Hydraulic Actuators	HYD-2001
		Classification of Hydraulic Valves.....	HYD-2002
		Hydraulic Piping and Instrumentation.....	HYD-2003
		Hydroelectric Symbology and Circuits.....	HYD-2004



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LOG-101

**Introduction to
Logistics**

What is Logistics?	LOG-1001
Logistics Technology.....	LOG-1002
Inventory.....	LOG-1003
Distribution and Transportation	LOG-1004
Safety, Quality and the Environment in Logistics	LOG-1005
Winning in Logistics.....	LOG-1006
Careers in Logistics.....	LOG-1007



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
MFG-101	Introduction to Manufacturing	What is Advanced Manufacturing?	MFG-1001
		Manufacturing History and Technology	MFG-1002
		From Ideas to Products	MFG-1003
		From Design to Manufacturing	MFG-1004
		Safety, Quality and the Environment in Manufacturing	MFG-1005
		Measuring Success in Manufacturing	MFG-1006
		Careers in Manufacturing	MFG-1007
MFG-102	Engineering Processes	The Engineering Process	MFG-1009
		Information Sharing	MFG-1010
MFG-103	Manufacturing Paperwork	Airplane Regulations	MFG-1011
		The Production Order	MFG-1012
		The Installation Plan	MFG-1013



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MAT-101

**Metals and
Materials**

Introduction to Metals	MAT-2001
Ferrous Metals	MAT-2002
Nonferrous Metals	MAT-2003
Heat Treatment of Metals	MAT-2004



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SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
MEA-201	Precision Measurement I	Introduction to Precision Instruments	MEA-2001
		Rules	MEA-2002
		Calipers.....	MEA-2003
		Micrometers.....	MEA-2004
MEA-202	Precision Measurement II	Small Hole Gauges.....	MEA-2005
		Dial Indicators	MEA-2006
		Bore Gauges	MEA-2007
		Height Gauges	MEA-2008
		Go/NoGo Gauges	MEA-2009
		Test Indicators.....	MEA-2010
MEA-203	Attribute Gauges	Go/NoGo Thread Gauges.....	MEA-2011
		Attribute Gauges	MEA-2012
		Thickness and Radius Gauges.....	MEA-2013
		Squares and Protractors	MEA-2014
		Surface Roughness Comparators.....	MEA-2015



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SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
MEA-204	Precision Measurement III	Adjustable Parallels.....	MEA-2016
		Surface Plates.....	MEA-2017
		Optical Comparators.....	MEA-2018
		Optical Center Finders.....	MEA-2019
MEA-205	Fastener Inspection Gauges	Grip Gauges	MEA-2020
		Countersink Gauges.....	MEA-2021
		Fastener Height Gauges	MEA-2022
		Rivet Inspection Gauges	MEA-2023
		Fastener Inspection Gauges.....	MEA-2024
		Gap Inspection Gauges.....	MEA-2025
MEA-206	Weld Inspection Gauges	Weld Gauges	MEA-2026



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
NDE-301	Introduction to Nondestructive Examination Aerospace	What is NDE?.....	NDE-3001
		NDE Methods	NDE-3002
		Careers in NDE	NDE-3003
NDE-302	Visual Testing Aerospace	Introduction to Visual Testing	NDE-3004
		Light and the Human Eye	NDE-3005
		Standard Inspection Techniques	NDE-3006
		Visual Testing Equipment	NDE-3007
		Manufacturing Produced Discontinuities	NDE-3008
		Standards and Procedures.....	NDE-3009
		Visual Testing of Castings.....	NDE-3010
		Visual Testing of Wrought Metal.....	NDE-3011
		Visual Testing of Welds.....	NDE-3012
In-Service Visual Inspection	NDE-3013		



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NDE-303

**Magnetic Particle
Testing Aerospace**

Magnetic Particle Examination	NDE-3014
Magnetism	NDE-3015
Magnetic Flux	NDE-3016
Electricity and Magnetism	NDE-3017
Electromagnets	NDE-3018
Cast Ferromagnetic Metals	NDE-3019
Wrought Ferromagnetic Metals	NDE-3020
Secondary Metal Processing	NDE-3021
Introduction to Magnetic Particle Examination	NDE-3022
Equipment and Materials	
Non-Portable Magnetic Particle Examination Equipment	NDE-3023
Portable Magnetic Particle Examination Equipment	NDE-3024



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NDE-303

**Magnetic Particle
Testing Aerospace
(cont'd)**

Lighting Equipment	NDE-3025
Magnetic Particle Materials	NDE-3026
Field Testing Devices	NDE-3027
Light Meters	NDE-3028
Part Preparation	NDE-3029
Technique Selection	NDE-3030
Magnetizing Currents	NDE-3031
Sample Examination #1	NDE-3032
Sample Examination #2	NDE-3033
Sample Examination #3	NDE-3034
Sample Examination #4	NDE-3035
Magnetic Particle Examination Standards	NDE-3036



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NDE-304

**Introduction to
Nondestructive
Examination
Commercial**

What is Nondestructive Examination?.....	NDE-3037
The NDE Process.....	NDE-3038
Materials.....	NDE-3039
Metals Manufacturing and Processes	NDE-3040
Testing of Material Properties	NDE-3041
Loads, Stresses, and Discontinuities	NDE-3042
Fracture Mechanics.....	NDE-3043
NDE Methods	NDE-3044
Personnel Qualification.....	NDE-3045



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NDE-305

**Visual Testing
Commercial**

Introduction to Visual Testing	NDE-3046
Light.....	NDE-3047
Standard Inspection Techniques	NDE-3048
Visual Testing Equipment	NDE-3049
Hierarchy of Product Standards.....	NDE-3050
Visual Testing of Castings.....	NDE-3051
Visual Testing of Rolled Products	NDE-3052
Visual Testing of Welds.....	NDE-3053
VT in Industrial Components.....	NDE-3054



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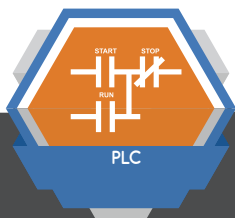
SKILLS COURSE TITLE

SKILLS COURSE
NUMBER

PLC-101

**Programmable
Logic
Controllers**

Introduction to Programmable Controllers	PLC-1001
Introduction to Digital Electronics.....	PLC-1002
Types and Functions of Programmable Controllers	PLC-2001
General Structure of PLC	PLC-2002
Physical Integration of the PLC	PLC-2003
Internal Structure of the CPU	PLC-2004
Basic Concepts of PLC Programming	PLC-2005
Common PLC Applications.....	PLC-2006



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POW-201

Hand Power

Pistol Grip DrillsPOW-2001
Tools Drilling TechniquesPOW-2002
Winslow Drills.....POW-2003
Compression RivetersPOW-2004
Rivet Installation Tools.....POW-2005

POW-202

Stationary Power

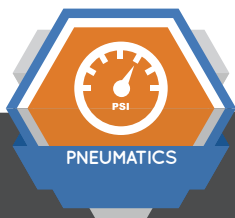
Tools

Introduction to Stationary Power ToolsPOW-2006
Disc and Belt SandersPOW-2007
Drill PressPOW-2008
Band SawPOW-2009
Arbor PressPOW-2010
Bench Grinder.....POW-2011
Table SawPOW-2012
Operating a Table Saw.....POW-2013



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
PNE-101	Introduction to Pneumatics	Introduction to Pneumatics	PNE-1001
		Pneumatic Systems	PNE-1002
		The Properties of Gases	PNE-1003
		Air Compression and Distribution - Part One.....	PNE-1004
		Air Compression and Distribution - Part Two	PNE-1005
PNE-201	Components of a Pneumatic System	Compressed Air Treatment	PNE-2001
		Pneumatic Actuators.....	PNE-2002
		Directional Control Valves.....	PNE-2003
		Vacuum Technology.....	PNE-2004
		Measuring Pneumatic Variables	PNE-2005
PNE-301	Pneumatic Applications	Pneumatic Applications.....	PNE-3001



TECHNICAL SKILLS

SKILL GROUP
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SKILL GROUP
NAME

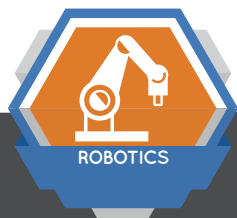
SKILLS COURSE TITLE

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ROB-101

Robotics

Introduction to Robotics.....	ROB-1001
Robot Safety.....	ROB-1002
Robot Axes.....	ROB-2001
Robot Manipulator.....	ROB-2002
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TOL-301

**Tooling Capstone
Project**

Need for Tools	TOL-3001
The Process.....	TOL-3002
Permanent Assemblies.....	TOL-3003
Critical Features.....	TOL-3004
Final Details.....	TOL-3005



TECHNICAL SKILLS

SKILL GROUP NUMBER	SKILL GROUP NAME	SKILLS COURSE TITLE	SKILLS COURSE NUMBER
WEL-201	Welding for NDE	Introduction to Welding	WEL-2001
		Welding and Welding Discontinuities	WEL-2003
WEL-202	Welding Processes	Welding Basics	WEL-2004
		Weld Defects	WEL-2005
		Arc Welding Safety	WEL-2006
		Elements of an Arc Welding Circuit	WEL-2007
		Shielding	WEL-2008
		Arc Welding Parameters	WEL-2009
		Gas Metal Arc Welding (GMAW)	WEL-2010
		Flux Core Arc Welding (FCAW)	WEL-2012
		Gas Tungsten Arc Welding (GTAW)	WEL-2012
		Plasma Arc Welding (PAW)	WEL-2013
		Shielded Metal Arc Welding (SMAW)	WEL-2015
Submerged Arc Welding (SAW)	WEL-2015		
Electroslag Welding (ESW) and Electrogas Welding	WEL-2016		



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take it away from you.”

B.B King – American Musician

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