



AME21

Advanced Manufacturing Education (EOD-AME21)

AME21 is a comprehensive 3rd generation, online curriculum of general manufacturing, automation, safety, quality, maintenance, green energy and personal effectiveness courses. These are not specific to DMG or Mori Seiki machine models and can be used effectively by any manufacturing facility to increase workforce productivity. Currently, there are 99 courses consisting of 358 chapter modules that represent approximately 450 hours of online content. This will continue to expand to meet customer training needs.

EOD AME21™ Advanced Manufacturing Skills: Online

Manufacturing organizations are complicated, demanding places. There's only one mission - get good products finished every day. That sounds easy, but every day multiple issues jeopardize the mission - down machines, quality problems, lack of skilled labor. In spite of these challenges, the mission never fails; manufacturers perform miracles every day to get products on the truck. At the end of the day there's little time left for employee education. We've never met a manufacturing company that doesn't want to have highly skilled employees. However, we've met plenty that can't find the time or resources to provide first-class education. That's where DMSU's Education-on-Demand AME21™ comes to the rescue.

This curriculum is on call 24/7. It's knowledge needed by everyone in your organization. AME21™ represents hundreds of hours of highly interactive, self-paced, competency-based education (educators tell us it is equivalent to several times that in classroom hours) that will give your employees the skills mastery required to be successful. Currently, there are 99 courses representing over 450 hours of content. AME21™ provides training in:

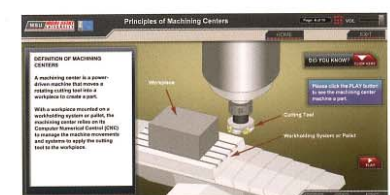
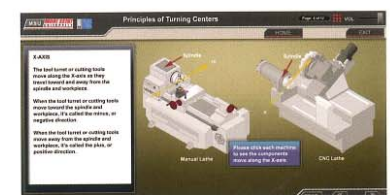
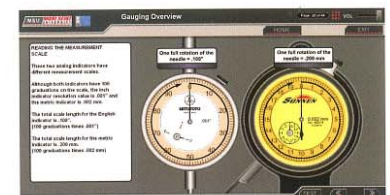
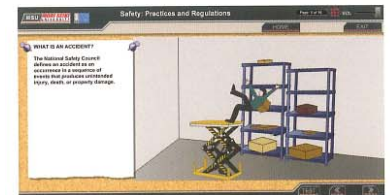
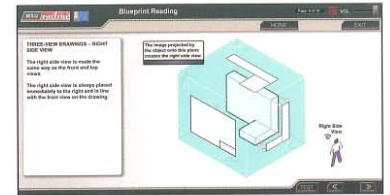
- Safety
- Manufacturing Systems
- Mathematics
- Blueprints & GD&T
- Machining
- Tooling
- CNC Operations
- Automation & Robotics
- Manufacturing Processes & Materials
- Quality & Measurement
- Workplace Effectiveness
- Electrical
- Fluid Power & Mechanical
- Green Energy

AME21™ doesn't have a class start and stop time. It's always open, and your students can spend as much time as they need to master the skills. That's changing lives!

Designed by the Oxygen Education division of AMATROL, Inc—a leader in hands-on, interactive education. Designed by manufacturing people with input from Fortune 100 companies and colleges, each course was chosen to create advanced manufacturing employees who will be successful because they:

- Have the necessary fundamental skills.
- Know how to be safe.
- Understand the business drivers.
- Understand the purpose of and need for quality systems.
- Understand and can use the manufacturing technologies.
- Can communicate effectively with others and in groups.
- Can implement Lean Manufacturing principles in the workplace.

A list of AME21™ courses with durations can be found in the “Course Pricing” section of this catalog. Contact DMG Mori Seiki University for individual course descriptions.



AME21™ is a trademark of AMATROL Inc.

Course Pricing – EOD AME21 (Online)

5. AME21™ MANUFACTURING SKILLS (ONLINE)	Code	Duration (approx.)	Price	
SAFETY				
Safety Practices and Regulations (3 chapters) ●●	DMSU - WXSA101	0.5 hr	Refer to Pricing below	
Personal Protective Equipment (PPE) (4 chapters) ●●	DMSU - WXSA102	0.5 hr		
Hazardous Communication (2 chapters) ●●	DMSU - WXSA103	0.5 hr		
Confined Spaces (1 chapter) ●●	DMSU - WXSA104	0.5 hr		
Lockout/Tagout (1 chapter) ●●	DMSU - WXSA105	0.5 hr		
Overhead Crane Safety (4 chapters) ●●	DMSU - WXSA206	2.0 hr		
Accident Response (1 chapter) ●●	DMSU - WXSA106	0.8 hr		
MANUFACTURING SYSTEMS & LEAN				
Principles of Advanced Manufacturing (5 chapters) ●●	DMSU - WXAM101	5.0 hr		
Lean Overview & Workplace Organization (7 chapters) ●●	DMSU - WXLM100	3.0 hr		
Introduction to Lean (5 chapters) ●●	DMSU - WXLM101	3.0 hr		
Lean Theory (6 chapters) ●●	DMSU - WXLM203	3.0 hr		
5S (7 chapters) ●●	DMSU - WXLM102	3.0 hr		
Total Productive Maintenance (1 chapter) ●●	DMSU - WXLM103	1.5 hr		
Poka-Yoke (1 chapter) ●●	DMSU - WXLM104	1.0 hr		
Lean Process Flow (1 chapter) ●●	DMSU - WXLM204	2.0 hr		
Visual Workplace (1 chapter) ●●	DMSU - WXLM205	1.5 hr		
Standardized Work (1 chapter) ●●	DMSU - WXLM206	1.5 hr		
Kaizen (1 chapter) ●●	DMSU - WXLM307	2.8 hr		
Value Stream Mapping (1 chapter) ●●	DMSU - WXLM308	1.3 hr		
Set-up Reduction (5 chapters) ●●	DMSU - WXLM409	2.8 hr		
MATHEMATICS				
Mathematics 1 (6 chapters) ●●	DMSU - WXMA101	5.0 hr		
Trigonometry 1 (6 chapters) ●●	DMSU - WXMA304	4.0 hr		
BLUEPRINTS				
Blueprint Reading (5 chapters) ●●	DMSU - WXBP101	4.0 hr		
AWS Welding Symbols on Blueprints (1 chapter) ●●	DMSU - WXBP102	0.9 hr		
General Dimensioning & Tolerances (3 chapters) ●●	DMSU - WXBP203	2.5 hr		
Geometric Dimensioning & Tolerancing (12 chapters) ●●	DMSU - WXBP204	8.0 hr		
METAL REMOVAL				
Principles of Turning (4 chapters) ●●	DMSU - WXPE101	4.0 hr		
Principles of Machining Centers (4 chapters) ●●	DMSU - WXPE102	4.0 hr		
Principles of Grinding (3 chapters) ●●	DMSU - WXPE203	4.0 hr		
Principles of Materials - Ferrous Metals (6 chapters) ●●	DMSU - WXML201	4.8 hr		
Principles of Materials - Non-Ferrous Metals (8 chapters) ●●	DMSU - WXML202	6.7 hr		
TOOLING				
Principles of Tooling (3 chapters) ●●	DMSU - WXTL101	2.0 hr		
Tooling for Turning (6 chapters) ●●	DMSU - WXTL202	2.0 hr		
Tooling for Machining Centers (4 chapters) ●●	DMSU - WXTL203	2.0 hr		
Tooling for Grinding (5 chapters) ●●	DMSU - WXTL204	2.0 hr		
Tooling for Tapping (5 chapters) ●●	DMSU - WXTL307	3.0 hr		
Principles of Workholding (5 chapters) ●●	DMSU - WXPT201	4.0 hr		
Principles of Coolants & Oils (6 chapters) ●●	DMSU - WXPT202	2.0 hr		
Principles of Hydraulics (5 chapters) ●●	DMSU - WXPT303	3.0 hr		
Principles of Gear Manufacturing (8 chapters) ●●	DMSU - WXPT404	4.5 hr		

Course Pricing – EOD AME21 (Online)

5. AME21™ MANUFACTURING SKILLS (ONLINE)		Code	Duration (approx.)	Price	
CNC OPERATIONS					
Principles of CNC (4 chapters)	●●	DMSU - WXCN101	3.0 hr		
Fanuc CNC Control Operations (5 chapters)	●●	DMSU - WXCN102	4.0 hr		
AUTOMATION					
Principles of Robotics SC4+ Controller (8 chapters)	●●	DMSU - WXAU201	5.0 hr		
Principles of Robotics IRC5 Controller (8 chapters)	●●	DMSU - WXAU203	6.5 hr		
Principles of Factory Automation (4 chapters)	●●	DMSU - WXAU202	8.0 hr		
MANUFACTURING PROCESSES & MATERIALS					
Mechanical Fabrication 1 (8 chapters)	●●	DMSU - WX19004	16.0 hr	Refer to Pricing below	
Production Assembly (8 chapters)	●●	DMSU - VX19030	32.0 hr		
Split Flange Coupling Assembly (1 chapter)	●●	DMSU - VX19036	4.0 hr		
Electric Torque Wrench Assembly (1 chapter)	●●	DMSU - VX19042	4.0 hr		
Wiring Harness Assembly (1 chapter)	●●	DMSU - WX19006	2.0 hr		
Contamination (2 chapters)	●●	DMSU - WX19007	4.0 hr		
Fasteners (2 chapters)	●●	DMSU - WX19008	4.0 hr		
Gaskets (1 chapter)	●●	DMSU - WX19009	2.0 hr		
Stall Bar Assembly (1 chapter)	●●	DMSU - WX19048	2.0 hr		
Instrumented DC-Electric Torque Wrench Assembly (1 chapter)	●●	DMSU - WX19054	2.0 hr		
Principles of Heat Treating (1 chapter)	●●	DMSU - WXML203	1.3 hr		
Principles of Plastics (1 chapter)	●●	DMSU - WXML204	2.3 hr		
Principles of Composites (1 chapter)	●●	DMSU - WXML205	1.3 hr		
Principles of Ceramics (1 chapter)	●●	DMSU - WXML206	1.8 hr		
QUALITY, MEASUREMENT & GAUGING					
ISO9000 and TS16951 (4 chapters)	●●	DMSU - WXQS101	3.5 hr		
Statistical Process Control 1 (4 chapters)	●●	DMSU - WXQS202	3.0 hr		
Statistical Process Control 2 (2 chapters)	●●	DMSU - WXQS304	1.0 hr		
Quality Tools (1 chapter)	●●	DMSU - WXQS305	0.5 hr		
Inspection Techniques 1 (9 chapters)	●●	DMSU - WXMT101	5.5 hr		
Measurement Tools 1 (10 chapters)	●●	DMSU - WX19017	20.0 hr		
Surface Plate (1 chapter)	●●	DMSU - WXMT202	0.5 hr		
Gauge Blocks (1 chapter)	●●	DMSU - WXMT203	1.0 hr		
Test Indicators (1 chapter)	●●	DMSU - WXMT204	0.9 hr		
Bench Comparators (1 chapter)	●●	DMSU - WXMT206	0.75 hr		
Optical Comparators (2 chapters)	●●	DMSU - WXMT207	0.75 hr		
Air Gauges (3 chapters)	●●	DMSU - WXMT209	1.5 hr		
Specialty Micrometers (2 chapters)	●●	DMSU - WXMT210	1.5 hr		
Height Gauges (2 chapters)	●●	DMSU - WXMT205	4.0 hr		
Bore Gauges (2 chapters)	●●	DMSU - WXMT208	4.0 hr		
Miscellaneous Inspection Instruments (3 chapters)	●●	DMSU - WXMT211	6.0 hr		
WORKPLACE EFFECTIVENESS					
Communication Skills (5 chapters)	●●	DMSU - WXPDP101	3.0 hr		
Conflict Resolution (3 chapters)	●●	DMSU - WXPDP102	3.0 hr		
Working in Groups (2 chapters)	●●	DMSU - WXPDP103	3.0 hr		
ELECTRICAL					
Electrical Fabrication 1 (3 chapters)	●●	DMSU - WX12204	6.0 hr		

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Course Pricing – EOD AME21 (Online)

5. AME21™ MANUFACTURING SKILLS (ONLINE)	Code	Duration (approx.)	Price	
ELECTRICAL (continued)				
Electric Motor Control (10 chapters) ●●	DMSU - WX17401	2.0 hr	Refer to Pricing below	
Motor Braking (1 chapter) ●●	DMSU - WX17402	2.0 hr		
Reduced Voltage Starting (2 chapters) ●●	DMSU - WX17403	4.0 hr		
Electronic Sensors (1 chapter) ●●	DMSU - WX17404	2.0 hr		
Electronic Counter (1 chapter) ●●	DMSU - WX17405	2.0 hr		
Variable Frequency AC Drive (4 chapters) ●●	DMSU - WX17411	8.0 hr		
SCR Speed Control (1 chapter) ●●	DMSU - WX17412	2.0 hr		
FLUID POWER & MECHANICAL				
Basic Pneumatics 1 (4 chapters) ●●	DMSU - VXB780	16.0 hr		
Basic Hydraulics (5 chapters) ●●	DMSU - VXB831	20.0 hr		
GREEN ENERGY				
Wind Concepts (3 chapters) ●●	DMSU - WX20011	6.0 hr		
Turbine Electric Hub Troubleshooting (5 chapters) ●●	DMSU - WX20013	10.0 hr		
Turbine Generator Control Troubleshooting (4 chapters) ●●	DMSU - WX20014	8.0 hr		
Turbine Nacelle Troubleshooting (6 chapters) ●●	DMSU - WX20015	12.0 hr		
Solar Concepts (5 chapters) ●●	DMSU - WX20016	10.0 hr		
Solar Site Analysis (1 chapter) ●●	DMSU - WX20017	2.0 hr		
Solar Thermal Troubleshooting – Open-Loop (4 chapters) ●●	DMSU - WX20101	8.0 hr		
Solar Thermal Troubleshooting – Closed-Loop (4 chapters) ●●	DMSU - WX20102	8.0 hr		
Solar Thermal Installation (4 chapters) ●●	DMSU - WX20103	8.0 hr		
Solar PV Troubleshooting (7 chapters) ●●	DMSU - WX20104	14.0 hr		
Solar PV Installation (4 chapters) ●●	DMSU - WX20105	8.0 hr		

Notes:

- Courses are Subject to Change. Course duration times are estimates only. AME21 Manufacturing Skills courses are licensed through Oxygen Education, Division of AMATROL Inc. Additional course offerings and updates will be posted on www.DMGMSUonDemand.com

AME21™ Curriculum Subscription Pricing

No longer do you have to pick and choose who gets training and who does not or worry about the cost of effective education. AME21™ is education when and where you need it for everyone in your organization. AME21™ is there 24 hours a day, 7 days a week to take care of your workforce education requirements. The AME21™ curriculum will deliver hundreds of hours of highly interactive, competency based education that will give your employees the skills mastery required to be successful in an advanced manufacturing environment. We think you will be surprised at how cost-effective it actually is to educate your workforce. As new courses are developed, they will be added to your account.

Number of Employees	Annual Commitment (12 mo. access)	Monthly Payment	Your Cost Per Employee/Per Month
1 - 15	\$ 5,000	\$ 417*	\$28
1 - 25	\$ 6,000	\$ 500*	\$20
26 - 50	\$ 9,000	\$ 750*	\$15
51 - 100	\$14,000	\$1,167	\$12
101 - 250	\$30,000	\$2,500	\$10
251 - 500	\$48,000	\$4,000	\$ 8
501 – 1,000	\$84,000	\$7,000	\$ 7

* Available only as automatic monthly credit card transaction, payable in advance of each month's access. Prices are subject to change.