BULLETIN 2000 - 07		**Date: February 7, 2000**
U.S. Department of Labor Employment and Training Administration Office of Apprenticeship Training, Employment and Labor (OATELS) Washington, D.C. 20210	Distribution: A-541Headquarters A-546 All Field Tech A-547 SAC; Lab. Com	Subject: New Apprenticeable Occupation - Industrial Machine System Technician Code: 200
Symbols: DSNIP/JBMD		Action: Immediate

PURPOSE: To inform the Office of Apprenticeship Training, Employment and Labor (OATELS), Bureau of Apprenticeship (BAT) Staff of a new apprenticeable occupation.

Industrial Machine System Technician
 O*NET Code: 49-9041.00
 RAIS Code: 1037
 Training Term: 4000 Hours
 Type of Training: Time - based

BACKGROUND: Request for apprenticeability consideration for this occupation was submitted by Nathaniel Brown on behalf of Bosch Braking System, Gallatin, Tennessee.

A suggested work process schedule and outline of related instruction are attached.

This occupation will be added to the Bureau's list of recognized apprenticeable occupations. For further information contact ATR John B. Mc Dowell.

ACTION: Note: State Directors, please share this information with our SAC partners where appropriate.

Attachment

WORK PROCESSES
INDUSTRIAL MACHINE SYSTEM TECHNICIAN
RAIS Code: 1037   O*NET Code: 49-9041.00

DESCRIPTION: Works independently or in a team, with minimum supervision, to assemble, install, align, program, troubleshoot, repair, calibrate and make improvements on a variety of high tech flexible manufacturing machine systems. Worker also supports product quality and lowest cost production via strong people skills, effective communication, and continuous improvement of manufacturing processes.

ON THE JOB TRAINING

		HOURS
Troubleshoot and repair industrial machine systems:		
a.	Adhere to plant safety rules at all times	150
b.	Read blueprints and apply layout and precision measurement skills to prepare work	200
c.	Machine parts to rebuild/replace mechanical components and to construct new components	700
d.	Repair/replace belts, pulleys, bearings, gears, couplings, and shafts	200
e.	Lubricate bearings, gears, couplings and rotating parts,	50
f.	align couplings and shafts	50
g.	Troubleshoot and repair pneumatic and hydraulic systems and components	250
h.	Troubleshoot AC/DC circuits	400
i.	Connect motors, starters, push buttons, relays and timers in motor control circuits and troubleshoot the control circuits	300
j.	Run conduit and electric wire to distribute power to point of use	200
k.	Troubleshoot electric power distribution (low voltage) systems	200
l.	Program and troubleshoot PLC controls	400
	program and troubleshoot NC/CNC controls	350
m.	Work in teams to solve problems and make improvements to machine and production processes	300
n.	Perform preventive maintenance	250

TOTAL   **4000**

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RELATED TECHNICAL INSTRUCTION
INDUSTRIAL MACHINE SYSTEM TECHNICIAN
RAIS Code: 1037   O*NET Code: 49-9041.00

FIRST YEAR	HOURS
1. Technical Drawing	15
2. Machine Tool Theory 1	45
3. Technical Mathematics	75
4. Computer Fundamentals	45
5. Machine Tool Theory 11	45
6. AC/DC Circuit Theory and Application	60
7. Written Communication Skills	45
8. Digital Circuits	30
9. CNC Fundamentals	45
Sub Total	**405**

SECOND YEAR	HOURS
1. CNC Programming	15
2. Introduction to Automated Systems/Robots	45
3. Programmable Controllers	45
4. Fundamentals of Mechanics	45
5. Automated Manufacturing Equipment	45
6. Hydraulics and Pneumatics	30
7. Computer Aided Design (Auto CAD 14)	45
8. Presentation Skills	15
9. Strength of Materials	30
10. Introduction to Welding	15
TOTAL	**735**