

APPRENTICESHIP STANDARDS

of the

California Tooling and Machining Apprenticeship Association *Formerly: California North Bay Chapter of the NTMA, Inc.*

ARTICLE I Purpose and Policy

The parties hereto declare it to be their purpose and policy to establish an organized, planned system of apprenticeship, conducted as a employer and employer association undertaking. These standards have, therefore, been adopted and agreed upon under the Shelley-Maloney Apprentice Labor Standards Act of 1939, as amended, to govern the employment and training of apprentices in the Craft defined herein, to become effective upon their approval.

ARTICLE II Craft

Occupation A	Machinist	DOT # 600.280.022
Occupation B	Mold Maker	DOT # 601.280.03F
Occupation C	Tool and Die Maker	DOT # 601.260.010
Occupation D	CNC Machinist	DOT # 600.280.02C
Occupation E	CNC Machine Technician	DOT # 609.662.010
Occupation F	Maintenance Machinist	DOT # 600.280.042

ARTICLE III Organization

There is hereby established the above named apprenticeship committee, covering Marin, Mendocino, Napa, Solano, and Sonoma, counties consisting of six (6) members, six (6) of whom shall be selected by and represent the employer organizations signatory hereto, and one apprenticeship consultant representing the Division of Apprenticeship Standards. In addition thereto, there shall be one advisor from the local school district and such other advisors as the committee shall determine. Such advisors and the apprenticeship consultant shall act without vote.

ARTICLE IV Jurisdiction

These standards shall apply to the employer organizations signatory hereto, their members, to other employers who subscribe, and to all apprentice agreements hereunder.

ARTICLE V Functions

The functions of the apprenticeship committee shall be to:

1. develop an efficient program of apprenticeship through systematic on-the-job training with related and supplemental instruction and periodic evaluation of each apprentice;
2. make periodic evaluations of the progress of each apprentice's on-the-job training related and supplemental instruction;
3. establish a mechanism to be used for the rotation of the apprentice from work process to work process to assure the apprentice complete training;
4. serve in an advisory capacity with employers and employees in matters pertaining to these standards;
5. aid in the adjustment of apprenticeship disputes;
6. develop fair and impartial selection procedures and an affirmative action plan in accordance with existing laws and regulations, and to apply them uniformly in the selection of applicants for apprenticeship. The selection procedures and affirmative action plan are included herein (Article XVIII);

ARTICLE VI Responsibilities

The responsibilities of the apprenticeship committee shall be to:

1. supervise the administration and enforcement of these standards;
2. adopt such rules and regulations as are necessary to govern the program provided, however, that the rules and regulations do not conflict with these standards;
3. oversee the program's ability, including financial ability, and commitment to meet and carry out its responsibilities under the federal and state law and regulations applicable to the Apprenticeable occupation and for the welfare of the apprentice;
4. conduct orientations, workshops or other educational sessions for employers to explain the apprenticeship program's standards and the operation of the apprenticeship program;
5. pass upon the qualifications of apprentice applicants;
6. file a signed copy of each apprentice agreement with the Secretary of the California Apprenticeship Council, with copies to all parties to the agreement;
7. establish and maintain a record system for on-the-job training and related instruction;

8. use every effort to keep the apprentice employed in a reasonably continuous manner and adequately instructed;
9. provide disciplinary procedures for apprentices and including provisions for fair hearings;
10. adopt changes to these standards, as necessary, subject to the approval of the parties hereto and the Chief of the Division of Apprenticeship Standards.

ARTICLE VII Definition of an Apprentice

An apprentice is a person at least 18 years of age, who has met the requirements for selection under the selection procedures, who is engaged in learning a designated Craft and who has entered into a written apprentice agreement under the provisions of these standards.

ARTICLE VIII Duties of an Apprentice

Each apprentice shall satisfactorily perform all work and learning assignments both on the job and in related instruction and shall comply with the rules, regulations and decisions of the apprenticeship committee.

ARTICLE IX Apprentice Agreement

1. Each apprentice agreement shall conform to the State law governing apprentice agreements, and shall be signed by the employer or by the apprenticeship committee and by the apprentices and must be approved by the apprenticeship committee.
2. Each apprentice shall be furnished a copy of or be given an opportunity to study these standards before indenture. These standards shall be considered a part of the apprentice agreement as though expressly written therein.

ARTICLE X Termination and Transfer of Agreements

1. During the probationary period, an apprentice agreement may be terminated by the apprenticeship committee at the request in writing of either party; after such probationary period an apprentice agreement may be terminated by the Administrator, by mutual agreement of all the parties thereto or cancelled by the Administrator for good and sufficient reason.
2. If an employer is unable to fulfill his/her obligations to train under any apprentice agreement or in the event of a layoff, the apprenticeship committee may, with the approval of the Administrator, transfer such agreement to any other employer if the apprentice consents and such other employer agrees to assume the obligation of said apprenticeship agreement.

ARTICLE XI Related and Supplemental Instruction

1. Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will be 144 hours per year provided by Petaluma Adult School see attached course outlines.
2. Required school time shall not be compensated.

ARTICLE XII Lay-off

1. If for any reason a lay-off of an apprentice occurs, the apprentice agreement shall remain in effect unless cancelled by the Administrator. However, credit for related instruction shall be given when the apprentice continues such instruction during the lay-off.
2. There shall be no liability on the part of the employer or the UAC for an injury sustained by an apprentice engaged in schoolwork at a time when the apprentice is unemployed.

ARTICLE XIII Controversies

All controversies or differences concerning apprentice agreements that cannot be adjusted locally by the apprenticeship committee or otherwise shall be submitted to the Administrator for determination.

ARTICLE XIV Term of Apprenticeship

Occupation A	DOT #	600.280.022	SEE DAS 24 dtd 10-6-08
Occupation B	DOT #	601.280.03F	SEE DAS 24 dtd 10-6-08
Occupation C	DOT #	601.260.010	SEE DAS 24 dtd 10-6-08
Occupation D	DOT #	600.280.02C	SEE DAS 24 dtd 10-6-08
Occupation E	DOT #	609.662.010	SEE DAS 24 dtd 10-6-08
Occupation F	DOT#	600.280.042	SEE DAS 24 dtd 10-6-08

ARTICLE XV Ratio 1:1

Occupation A	DOT #	600.280.022	SEE DAS 24 dtd 10-6-08
Occupation B	DOT #	601.280.03F	SEE DAS 24 dtd 10-6-08
Occupation C	DOT #	601.260.010	SEE DAS 24 dtd 10-6-08
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Occupation E	DOT #	609.662.010	SEE DAS 24 dtd 10-6-08
Occupation F	DOT#	600.280.042	SEE DAS 24 dtd 10-6-08

ARTICLE XVI Wage Schedule for the Following Occupations:

Occupation A	DOT #	600.280.022	SEE DAS 24 dtd 10-6-08
Occupation B	DOT #	601.280.03F	SEE DAS 24 dtd 10-6-08
Occupation C	DOT #	601.260.010	SEE DAS 24 dtd 10-6-08
Occupation D	DOT #	600.280.02C	SEE DAS 24 dtd 10-6-08
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The Apprenticeship wage scale shall not be less than

4 YEAR PROGRAMS

Period	%	Per Hr.	Period	%	Per Hr
1 st 6 month period	50%	\$9.50	5 th 6 month period	70%	\$13.30
2 nd 6 month period	55%	\$10.45	6 th 6 month period	75%	\$14.25
3 rd 6 month period	60%	\$11.40	7 th 6 month period	80%	\$15.20
4 th 6 month period	65%	\$12.35	8 th 6 month period	90%	\$17.10

Journeyman Graduate \$19.00/Hr.

ARTICLE XVII Work Training

1. The employer shall see that all apprentices are under the supervision of a qualified journeyman or instructor and shall provide the necessary diversified experience and training in order to train and develop the apprentice into a skilled worker, proficient in all the work processes of a trade as outlined herein. Apprentices shall also be trained in the use of new equipment, materials and processes as they come into use in the occupation.
2. The major work processes in which apprentices will be trained (although not necessarily in the order listed) and the approximate hours (not necessarily continuous) to be spent on each are as follows:

Occupation A	DOT #	600.280.022	SEE DAS 24 dtd 10-6-08
Occupation B	DOT #	601.280.03F	SEE DAS 24 dtd 10-6-08
Occupation C	DOT #	601.260.010	SEE DAS 24 dtd 10-6-08
Occupation D	DOT #	600.280.02C	SEE DAS 24 dtd 10-6-08
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Occupation F	DOT#	600.280.042	SEE DAS 24 dtd 10-6-08

<u>Work Processes</u>	<u>Approximate Hours</u>
A. Preliminary: Job planning meetings, layout, tool control, drawing sketches, coolant changes.	200
B. Drilling: General drilling, tapping, reaming on a CNC or manual drill press.	800
C. Lathes: Manual and/or CNC lathe setup and operation.	2500
D. Milling: Manual and/or CNC mill setup and operation.	2500
E. Heat Treatment: Oven, furnace or torch heat treating and hardness checking.	100
F. Grinding: Manual or CNC Surface and/or cylindrical grinding setup and operation.	700
G. Bench Work: Deburring, fit-up, assembly, fabrication, and use of power and hand tools.	1200
	Total Hours 8000

<u>Work Processes</u>	<u>Approximate Hours</u>
A. Tool Room: Works in tool room handing out specific tools and/or learn types and how to use them. Tool control activities.	300
B. Operate CNC: Operates C.N.C machining center. Changes parts, inspects parts per blueprint specifications.	2000
C. Operates Turning Center: Turning machining center. Changes parts, inspects parts per blueprint specifications.	1200
D. Fixture design: Create and design fixtures for machining operations.	400
E. Manual Mill: Set up and operation of manual mills. Boring machines, vertical & horizontal mills.	450
F. Manual Lathe: Set up and operation of manual lathes	450
G. Programming: Writes programs using a computer with CAD/CAM, editing programs.	800
H. Setup Turning Center: Set up C.N.C. lathe machining centers. Set up cutting tools, touch off tools, down load programs into the machine or create programs manually using the controls on the machine. Run the first part to blueprint.	600
I. Setup Machining Center: Set up C.N.C. machining centers. Perform tasks such as building fixtures, indicating fixtures Setting up cutting tools, manually using the controls on the machine. Run the first part to blueprint.	1000
J. Maintenance: Perform preventive maintenance on equipment and work areas. Change filters, add proper oils and coolants as needed.	200
K. Inspection/metrology: Inspects parts to ensure conformance to requirements. Use calibrated instruments, CMM and/or vision inspection equipment. Writes inspection reports.	600
Total Hours	8000

<u>Work Processes</u>	<u>Approximate Hours</u>
A. Preliminary: Job planning meetings, layout, tool control, drawing sketches, coolant changes	200
B. Drilling: General drilling, tapping, reaming on a CNC or manual drill press.	400
C. Lathes: Manual and/or CNC lathe setup and operation.	700
D. Milling: Manual and/or CNC mill setup and operation.	1300
E. Grinding: Manual or CNC Surface and/or cylindrical setup and operation	1900
F. Electrical Discharge Machining: Operates wire and/or plunge type EDM	600
G. Bench Work: Deburring, fit-up, assembly, fabrication use of power and hand tools.	1000
H. Heat Treatment: Oven, furnace or torch heat treating and hardness checking	200
I. Construction of Molds: Construction, maintenance and/or testing of molds	1300
J. Precision Inspection: Inspects parts to ensure conformance to requirements. Use calibrated instruments, CMM and/or vision inspection equipment. Writes inspection reports.	400
Total Hours	8000

<u>Work Processes</u>	<u>Approximate Hours</u>
A. Tool Crib: Works in tool room handing out specific tools and/or learn types and how to use them. Tool control activities.	240
B. Drilling: General drilling, tapping, reaming on a CNC or manual drill press.	600
C. Lathes: Manual and/or CNC lathe setup and operation.	1000
D. Milling: Manual and/or CNC mill setup and operation.	1000
E. Grinding: Manual or CNC Surface and/or cylindrical setup and operation.	1400
F. Jig Borer: Precision hole location on a manual and/or CNC setup and operation.	600
G. Bench Work: Deburring, fit-up, assembly, fabrication use of power and hand tools.	1000
H. Heat Treatment: Oven, furnace or torch heat treating and hardness checking	200
J. Construction of Tools & Dies: Assemble, test and adjust tools production fixtures and/or dies	1400
J. Precision Inspection: Inspects parts to ensure conformance to requirements. Use calibrated instruments, CMM and/or vision inspection equipment. Writes inspection reports.	300
K. Miscellaneous: Planning, maintenance, collaboration of tool, fixture and/or die design.	260
Total Hours	8000

Occupation: **Maintenance Machinist** DOT: 600.280.042

<u>Work Processes</u>	<u>Approximate Hours</u>
C. <u>Tool Crib:</u> Tool use, tool identification, maintenance and repair.	400
D. <u>Machine Tool Operation:</u> Manual and/or CNC Drill Press, Lathe, Mills, Grinding.	2500
E. <u>Blue Print and diagram interpretation</u>	200
F. <u>Adjustment of operational equipment</u>	400
G. <u>Diagnosis of Operational Equipment</u>	600
H. <u>Lubrication and cleaning</u> of components and equipment.	1000
I. <u>Hydraulic and electrical connections</u> to mechanical devices.	300
J. <u>Equipment and machinery inspection</u> and ordering replacement and repair parts.	1500
K. <u>Maintenance records keeping.</u>	800
L. <u>Miscellaneous</u>	300
	Total Hours 8000

<u>Hours</u>	<u>Work Processes</u>	<u>Approximate</u>
A.	Preliminary: Job planning meetings, layout, tool control, drawing sketches, coolant changes	100
B.	Bench Work: Deburring, fit-up, assembly, fabrication use of power and hand tools.	500
C.	Inspection & Quality Assurance: Inspects machined parts.	400
D.	Manual Machine Operation: Operates manual lathes, mills, grinders, drill presses.	400
E.	Operates CNC Machine Centers: Operates C.N.C turning and/or machining center. Changes parts, inspects parts per blueprint specifications	2500
F.	Maintenance, clean & repair: Performs daily or routine maintenance, and/or shop clean up and repairs.	100
	Total Hours	4000

ARTICLE XVIII Safety & Health, Recognition of Illegal Discrimination and Sexual Harassment

- A. Each apprentice shall receive training and education in first aid, safe working practices and in the recognition of occupational health and safety hazards.
- B. Each apprentice shall receive training in the recognition of illegal discrimination and sexual harassment.

ARTICLE XIX Certificate of Completion

- 1. Upon evidence of satisfactory completion of apprenticeship, and upon the recommendation of the apprenticeship committee, each apprentice will be issued a Certificate of Completion by the authority of the California Apprenticeship Council.

ARTICLE XX California Plan for Equal Opportunity in Apprenticeship
(See Attachment)

The foregoing standards are hereby agreed to and adopted on _____
Date

Employer Organization

California Tooling and Machining Apprenticeship Association
200 Douglas St.
Petaluma, CA 94952

By _____

The foregoing apprenticeship standards, being in conformity with the rules and regulations of the California Apprenticeship Council, the California Code of Regulations, and applicable Federal Regulations are hereby approved _____
20_____.

_____	_____
Chief, Division of Apprenticeship Standards	Date

California Tooling and Machining Apprenticeship Association

LIST OF COMMITTEE MEMBERS NAMES AND COMPANY ADDRESSES

Board of Directors				
Dick Hunt	Datum Technologies, Inc	327 O'Hair Court Suite D	Santa Rosa, CA	95407
Rudy Hirshnitz	SRC Cables	5600 Skylane Blvd.	Santa Rosa, CA	95403
Paul Eelkema	Career Development Educator (Ret)	420 Carrillo St	Santa Rosa, CA	95401
Officers				
Dan Sunia, President	CTMAA & PHS Teacher	201 Fair St	Petaluma, CA	94952
Butch Palmgren, Vice President / Secretary	Morgan Manufacturing	521 Second St	Petaluma, CA	94952
Mike Maendl	Protofab Manufacturing and Prototypes	1310 Stub Rd	Petaluma, CA	94952
Advisors:				
Rich Dodelle	GCX Corp.	3875 Cypress Drive	Petaluma, CA	94954
Grant Kerr	G-Man Precision Machining	200 Oceanic Way Unit D	Santa Rosa, CA	95407
Richard Vera, Profesor	Santa Rosa Junior College	1501 Mendocino Ave	Santa Rosa, CA	95401
Pat Hayes	Selway Machine Tool Co.	29250 Union City Blvd.	Union City, CA	94587
Hugh Cambra	Coast Tool Co.	2099 Edison Ave.	San Leandro, CA	94577
Jerry Smith	Agilent Technologies	1400 Fountaingrove Pkwy MS 4L	Santa Rosa, CA	95403
NAME OF SCHOOL & REPRESENTATIVE				
Carol Waxman, Principal	Petaluma Adult School	200 Douglas Street	Petaluma, CA	94952
DAS CONSULTANT				
Kelly Douglass	Apprenticeship Consultant	455 Golden Gate Ave.	San Francisco, CA	94102