

Division of Apprenticeship Standards (DAS)

Apprenticeship Program Summary Sheet

To: Adele Burnes, Chief
From: Tony Pena
CC: Program Planning and Review
Date: February 7, 2025

Program Name: FM Industries, Inc.
Industry: Advanced Manufacturing
DAS File No.: 101366
Grant Awardee: ☒ No ☐ Yes

Actions:

- ☒ Proposed new apprentice program
- ☐ Existing apprenticeship program adding new occupations
- ☐ Existing apprenticeship program expanding area of operations
- ☐ Existing apprenticeship program changing work processes on approved occupations.

Labor Organizations Representing Any of the Apprentices:

None

Request for Approval under Labor Code 3075:

FM Industries, Inc. is not intended to train in the building and construction trades and is not eligible to dispatch apprentices to projects with public works, prevailing wage or skilled and trained workforce requirements within the meaning of Labor Code sections 1720 and 3075 and will not train or dispatch apprentices in the building and construction trades or firefighters occupations.

Comments:

A leading contract manufacturer of precision components and assemblies for the semiconductor equipment industry, FM Industries' Mission Statement is to provide outstanding manufacturing solutions and services that consistently exceed customer expectations. FMI provides customers with leading-edge support from prototype to production and a progressive approach in solving difficult manufacturing challenges. We are proud of our highly skilled, diversified and committed Team Members. We invest heavily in a range of training and development initiatives to ensure our people remain our most important asset. As an apprentice at FMI, you will benefit from a well rounded on the job training program where you'll

be provided with opportunities to learn from experienced Team Members. In addition, you'll add to your skill set through mechatronics courses at Mission College and/or Foothill College.

FM Industries, Inc. will oversee the apprenticeship program herein and seeks approval from the Department of Industrial Relations, Division of Apprenticeship Standards for the following:

Proposed Occupation, Wage Rate & O*Net Code:

- Industrial Manufacturing Technician (Hardware Technician) O*Net: 17-3026.00
Professional Worker Wage: \$29.31 per hour
Proposed Apprentice Wage: \$23.00 per hour
Proposed No. of Apprentices: 3

- Electromechanical Technician O*Net: 17-3024.00
Professional Worker Wage: \$34.61 per hour
Proposed Apprentice Wage: \$23.00 per hour
Proposed No. of Apprentices: 3

Proposed Employers:

- FM Industries, Inc. - 221 Warren Ave., Fremont, CA 94539

FM Industries, Inc. Program Standards

221 Warren Ave., Fremont, CA 94539

(510) 673-5266

Megan.simpson@fmindustries.com

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Article I Jurisdiction

These standards shall apply to the employer signatory hereto and to all apprentice agreements hereunder.

Area Covered by Standards: All CA Counties.

Article II Purpose and Policy

The parties hereto declare it to be their purpose and policy to establish an organized, planned system of apprenticeship, conducted as an education-sponsored, employer-based 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 trade, craft, or occupation defined herein, to become effective upon their approval.

Article III Craft, Trade or Occupation, Related and Supplemental Instruction, Term of Apprenticeship, Ratio, Wage Schedule, and Work Training

Occupation	O*Net Code	Attachment
Industrial Manufacturing Technician (Hardware Technician)	17-3026.00	B-1
Electromechanical Technician	17-3024.00	B-2

Article IV Responsibilities of Program Sponsor

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 that the rules and regulations do not conflict with these standards and provide a copy of said rules and regulations to each apprentice;
- 3) make periodic evaluations of each apprentices on-the-job training and related and supplemental instruction;
- 4) provide reasonably continuous employment to all apprentices in its employ;
- 5) ensure safe work site facilities, skilled workers as trainers at the work site, and safe equipment sufficient to train apprentices;
- 6) determine the qualifications of apprentice applicants and ensure fair and impartial treatment of applicants for apprenticeship selected through uniform selection procedures;
- 7) file a signed copy, written or electronic, of each apprentice agreement with the Division of Apprenticeship Standards, within 30 days of execution, with copies to all parties to the agreement;

- 8) establish and utilize a procedure to record and maintain all records of the apprentice's worksite job progress and progress in related and supplemental instruction;
- 9) establish and utilize a system for the periodic review and evaluation of the apprentice's progress in job performance and related instruction;
- 10) discipline apprentices, up to and including termination, for failure to fulfill their obligations on-the-job or in related instruction, including provisions for fair hearings;
- 11) annually prepare and submit a Self-Assessment Review as well as a Program Improvement Plan to the Chief of the Division of Apprenticeship Standards;
- 12) ensure training and supervision, both on the job and in related instruction, in first aid, safe working practices, and the recognition of occupational health and safety hazards;
- 13) ensure training in the recognition of illegal discrimination and sexual harassment.
- 14) establish an adequate mechanism to be used for the rotation of the apprentice from work process to work process to assure the apprentice of complete training in the apprenticeable occupation;
- 15) ensure the program's ability, including financial ability, and commitment to meet and carry out its responsibilities under federal and state law and regulations applicable to the apprenticeable occupation and for the welfare of the apprentice;
- 16) ensure there is meaningful representation of the apprentice in the management of the program;
- 17) adopt changes to these standards, as necessary, subject to the approval of the parties hereto and the Chief of the Division of Apprenticeship Standards.
- 18) abide by any and all relevant California Labor Codes and California Code of Regulations regarding apprenticeship.

Article V 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 of participating employer, who is engaged in learning a designated craft or trade, and who has entered into a written apprentice agreement under the provisions of these standards.

Article VI 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 VII Apprentice Agreement

- 1) Each apprentice agreement shall conform to the State law governing apprentice agreements, shall be signed by the program sponsor and by the apprentice, and shall remain in effect during a lay-off unless cancelled.

- 2) Each apprentice shall be furnished with a copy of or be given an opportunity to study these standards before registration. These standards shall be considered a part of the apprentice agreement as though expressly written therein.

Article VIII Termination

- 1) During the probationary period, an apprentice agreement shall 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) Disciplinary proceedings for apprentices shall be duly noticed in writing to such individuals. The Division of Apprenticeship Standards shall attend all such proceedings.

Article IX Controversies

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

Article X Certificate of Completion

- 1) In addition to previous on-the-job training and related school instruction, which is of an approved nature, the Apprentice shall have completed not less than an additional six (6) months as an apprentice under the laws of the State of California and demonstrated mastery of the skills and knowledge of the prescribed program.
- 2) In recognition of unusual ability and progress, the program sponsor or apprenticeship committee may decrease the term of apprenticeship for an individual apprentice not more than twelve and one-half percent (12½%).
- 3) Upon evidence of satisfactory completion of apprenticeship, and upon the recommendation of the program sponsor, each apprentice will be issued a Certificate of Completion by the authority of the Chief of the Division of Apprenticeship Standards and the Interagency Advisory Committee on Apprenticeship.

Article XI Equal Opportunity in Apprenticeship

FM Industries, Inc. will not discriminate against apprenticeship applicants or apprentices based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age for individuals over forty years of age, military or veteran status, or sexual orientation.

FM Industries, Inc. will take affirmative steps to provide equal opportunity in apprenticeship.

Article XII Written Applications

Written applications can be picked up from an HR representative at our company headquarters, located at 221 Warren Ave., Fremont, CA 94539. Upon completion, the application can be returned to the HR Department.

Article XIII Records

All records will be maintained, in written or electronic form, for five (5) years and kept at:

FM Industries, Inc.
221 Warren Ave.
Fremont, CA 94539

Article XIV Annual Compliance

FM Industries, Inc. will submit an annual compliance report to the Division of Apprenticeship Standards as requested by the Division.

FM Industries, Inc. agrees to accept electronic signatures for these Division of Apprenticeship Standards and all related Division of Apprenticeship Standards documents.

The foregoing standards are hereby agreed to and adopted by FM Industries, Inc. on June 13, 2025 (Committee approval date).

Employer Organization

FM Industries, Inc.

221 Warren Ave., Fremont, CA 94539

Megan Simpson, Training Specialist

Date

The foregoing apprenticeship standards, being in conformity with the applicable California Labor Code, California Code of Regulations and Federal Regulations, are hereby approved

_____.
(DAS approval date)

Adele Burnes, Chief
Division of Apprenticeship Standards

Date

Attachment B-1

Training Schedule and Working Conditions

FM Industries, Inc.

Occupation

Occupation: Industrial Manufacturing Technician (Hardware Technician)

O*Net Code: 17-3026.00

Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency-based with 150 related and supplemental instruction (RSI) hours, and completed within approximately 12 months.

The period of probation shall be reasonable in relation to the full apprenticeship term, with full credit given for such period toward completion of the apprenticeship, and in no event shall exceed the shorter of 25 percent of the length of the program or one (1) year. The period of probation shall be three (3) months.

Article II Wage Schedule

Professional Worker Wage:

\$ 29.31 per hour effective 6/13/2025.

Apprentice Wage and Advancement Schedule:

In no case shall an Apprentice receive a starting wage that is less than the applicable federal, state, or local entity (city or county) minimum wage, whichever is higher for the county or city where the apprentice is working. The applicable minimum wage law shall establish the effective date of the minimum wage.

The apprentices will receive health benefits greater than or equal to \$2.50 per hour.

To advance from one period to the next, the apprentice shall have met the following requirements:

1st period	0 - 25% Competencies	\$ 23.00/hour
2nd period	50% Competencies	\$ 24.15/hour
3rd period	75% Competencies	\$ 26.08/hour
4th period	100% Competencies	\$ 27.65/hour

Hours of Work and Working Conditions and Overtime Provision:

Eight (8) hours of labor constitutes a day's work. Employment beyond eight (8) hours in any workday or more than six (6) days in any workweek requires the employee to be compensated for the overtime at not less than one and one-half times the employee's regular rate of pay for all hours worked in excess of eight (8) hours, up to and including 12 hours in any workday, and for the first eight (8) hours worked on the seventh (7) consecutive day of work in a workweek; and double the employee's regular rate of pay for all hours worked in excess of 12 hours in any workday and for all hours worked in excess of eight (8) on the seventh (7) consecutive day of work in a workweek. If employers utilize an alternative workweek schedule in accordance with the California Industrial Welfare Commission Orders, the overtime will be determined and paid in accordance with the applicable alternative workweek provisions.

The workday and workweek and all other conditions of employment for apprentices shall conform to all applicable laws and regulations and shall not be greater than for those of a professional worker.

Overtime shall not be allowed if it will interfere with or impair the training or be detrimental to the health and safety of the apprentice.

ARTICLE III Work-Training

- 1) The employer shall see that all apprentices are under the supervision of a qualified professional worker or instructor and shall provide the necessary diversified experience and training in order to develop the apprentice into a proficiently skilled worker, as outlined herein.
- 2) Each apprentice shall be trained in the use of new equipment, materials and processes as they come into use in the occupation.
- 3) The major categories in which apprentices will be trained (although not necessarily in the order listed) are as follows:

Competency Check List

Demonstrates Fundamentals: Apprentice can perform the task with some coaching.

Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency.

Detailed Work Activities: Initial and date each task when Competency Check List has been completed.

Professional Competencies and Performance Areas**1. Safety: Protect Self and Other Workers from Accidents and Injuries.**

A. Learn and follow workplace and safety procedures and policies, including the consistent and proper use of protective clothing and personal safety devices.

- B. Adhere to Occupational Safety and Health Administration (OSHA) General Industry safety standards, including all applicable regulations, policies, and procedures for health, emergency, and environmental compliance.
- C. Maintain a clean and orderly workplace, storing chemicals and corrosive or combustible materials properly and disposing of waste products according to company policies and local/federal laws and regulations.
- D. Use, store, and maintain hand-tools properly to eliminate trip hazards, injury, electrocution, or damage.
- E. Lift supplies and materials using proper body mechanics and assistive devices, such as hoists, lifts, forklifts, and straps.
- F. Report and respond promptly, safely, and appropriately to emergency or hazardous situations and troubleshoot any issues that may arise.
- G. Use lock-out/tag-out procedures when working with appropriate tools and equipment.
- H. Adhere to Manufacturing environment protocol such as contaminant-free manufacturing, and cleanroom protocol where applicable.

2. Production Equipment Setup: Set Up, Inspect, and Adjust Production Equipment.

- A. Perform mechanical set-up per employer's Standard Operating Procedure, and equipment manufacturer's specifications.
- B. Read and interpret production orders.
- C. Plan and identify set-up requirements.
- D. Use appropriate hand and power tools.
- E. Select tools and materials.
- F. Assemble equipment.
- G. Inspect, test, and verify set-up.
- H. Adjust production equipment to meet and maintain production specifications.
- I. Notify appropriate individual of potential problems with equipment or machine function, need for routine maintenance, or concerns about unusual sounds, vibrations, smells, or production errors.
- J. Read and understand job specifications.

3. Production Equipment Operation. Operate production equipment according to Production Schedule, Process, Protocol, and Safety Requirements.

- A. Use appropriate hand and power tools.

- B. Use technical drawings, formulas, and process control sheets efficiently.
- C. Operate production equipment: startup, run, and shutdown.
- D. Follow production schedule.
- E. Monitor and inspect products.
- F. Monitor and adjust equipment as needed.
- G. Disassemble equipment and components, if appropriate.
- H. Sanitize equipment per employer standards, if applicable.
- I. Document work; document production process; document adjustments made during production.
- J. Maintain accurate recording of on-the-job training hours.

4. Quality Production and Quality Assurance: Produce Products That Meet or Exceed Quality, Volume, and Cost Requirements.

- A. Visually inspect materials, products, parts, and finished goods.
- B. Perform product quality checks.
- C. Demonstrate awareness of/identify defects and causes of rework.
- D. Interpret tolerances using technical drawings and job specifications.
- E. Adhere to customer-specific quality guidelines.
- F. Follow employer-specific quality guidelines.
- G. Use trade-related math to measure and inspect work.
- H. Select and use various metrology tools, such as scanning electron microscopes, micrometers, calipers, dial and electronic indicators, gauge blocks, optical comparators, Coordinate Measuring Machines (CMM), to assure quality product.
- I. Identify, evaluate, and report non-compliant stock, material, parts, and finished goods.
- J. Document all quality tests; understand implications and consequences of documentation.
- K. Use applicable systems to report results and document work.

5. Routine Equipment Maintenance: Shut down, disassemble, and maintain equipment according to manufacturer's and employer's recommendations and protocols.

- A. Inspect equipment and employ basic awareness of maintenance concepts.

- B. Identify a malfunctioning machine. Engage emergency shutdown procedures when necessary.
- C. Follow general lubrication guidelines.
- D. Disassemble equipment and components.
- E. Apply preventative maintenance practices effectively; utilize manufacturer-specific guidelines where appropriate.
- F. Follow basic troubleshooting guides. Note and troubleshoot needed maintenance or repair services and inform appropriate individual or department, if necessary.
- G. Assist and communicate with maintenance personnel regarding equipment malfunction(s).
- H. Demonstrate ability to recognize and/or solve mechanical problem(s).
- I. Use autonomous maintenance principles. Follow preventive maintenance schedule and document.

6. Inventory and Material Processes.

- A. Demonstrate awareness of in-plant material flows.
- B. Identify material management processes.
- C. Compare inventory flow to roles and responsibilities.
- D. Learn and apply “lean” manufacturing principles to workplace processes.
- E. Demonstrate awareness of logistics related to raw material and customer deliveries.

7. Continuous Improvement. Participate in Continuous Process Improvement in Processes, Products, or services.

- A. Suggest process improvements - both business and manufacturing.
- B. Participate in continuous improvement activity for professional growth.
- C. Minimize and remove waste - environmental, material, processes, and manufacturing.
- D. Apply root cause analysis to improve manufacturing process.
- E. Adapt to process changes when introduced.
- F. Participate in cross-training opportunities.

8. General Business and Industry Knowledge. Contribute to the business goals of the organization through continuous improvement and professional development.

- A. Describe the importance of plant and departmental goals, e.g., Key Performance Indicators.
- B. Relate the importance of IMT to employer success and workforce stability.
- C. Apply basic business terms to manufacturing-related workplace processes and activities.
- D. Describe the flow of work: “upstream” or “downstream.”
- E. The employer may establish additional training and competencies not stated above, or they may assign these hours to one or more of the work processes included above.
- F. Learn and use company/industry based software-based applications and resources.

ARTICLE IV Related Instruction

Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will not be less than 150 hours per year. Related and supplemental instruction will be provided by Mission College and/or Foothill College.

Time spent in related and supplemental instruction may not be compensated.

Industry Career Overview	15 Hours
Electronic Systems	45 Hours
Applied Math	45 Hours
Analog Circuits and Semiconductor Devices	45 Hours
Total	150 Hours

ARTICLE V Ratio

The ratio of apprentices to professional workers shall be:

- 1) Ratio #1: Each professional worker may supervise three (3) apprentice(s)

Attachment B-2

Training Schedule and Working Conditions

FM Industries, Inc.

Occupation

Occupation: Electromechanical Technician

O*Net Code: 17-3024.00

Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency-based, with 699 related and supplemental instruction (RSI) hours, and completed within approximately 48 months.

The period of probation shall be reasonable in relation to the full apprenticeship term, with full credit given for such period toward completion of the apprenticeship, and in no event shall exceed the shorter of 25 percent of the length of the program or one (1) year. The period of probation shall be one (1) year.

Article II Wage Schedule

Professional Worker Wage:

\$ 34.61 per hour effective 6/13/2025.

Apprentice Wage and Advancement Schedule:

In no case shall an Apprentice receive a starting wage that is less than the applicable federal, state, or local entity (city or county) minimum wage, whichever is higher for the county or city where the apprentice is working. The applicable minimum wage law shall establish the effective date of the minimum wage.

The apprentices will receive health benefits greater than or equal to \$2.50.

To advance from one period to the next, the apprentice shall have met the following requirements:

1st period	0 - 12% Competencies	\$ 23.00/hour
2nd period	13 - 24% Competencies	\$ 24.15/hour
3rd period	25 - 36% Competencies	\$ 26.08/hour
4th period	37 - 48% Competencies	\$ 27.65/hour

5th period	49 - 60% Competencies	\$ 29.31/hour
6th period	61 - 72% Competencies	\$ 30.48/hour
7th period	73 - 84% Competencies	\$ 31.70/hour
8th period	85 - 100% Competencies	\$ 32.61/hour

Hours of Work and Working Conditions and Overtime Provision:

Eight (8) hours of labor constitutes a day's work. Employment beyond eight (8) hours in any workday or more than six (6) days in any workweek requires the employee to be compensated for the overtime at not less than one and one-half times the employee's regular rate of pay for all hours worked in excess of eight (8) hours, up to and including 12 hours in any workday, and for the first eight (8) hours worked on the seventh (7) consecutive day of work in a workweek; and double the employee's regular rate of pay for all hours worked in excess of 12 hours in any workday and for all hours worked in excess of eight (8) on the seventh (7) consecutive day of work in a workweek. If employers utilize an alternative workweek schedule in accordance with the California Industrial Welfare Commission Orders, the overtime will be determined and paid in accordance with the applicable alternative workweek provisions.

The workday and workweek and all other conditions of employment for apprentices shall conform to all applicable laws and regulations and shall not be greater than for those of a professional worker.

Overtime shall not be allowed if it will interfere with or impair the training or be detrimental to the health and safety of the apprentice.

ARTICLE III Work-Training

- 1) The employer shall see that all apprentices are under the supervision of a qualified professional worker or instructor and shall provide the necessary diversified experience and training in order to develop the apprentice into a proficiently skilled worker, as outlined herein.
- 2) Each apprentice shall be trained in the use of new equipment, materials and processes as they come into use in the occupation.
- 3) The major categories in which apprentices will be trained (although not necessarily in the order listed) are as follows:

Competency Check List

Demonstrates Fundamentals: Apprentice can perform the task with some coaching.

Proficient in Task: Apprentice performs task properly and consistently.

Completion Date: Date apprentice completes final demonstration of competency.

Detailed Work Activities: Initial and date each task when Competency Check List has been completed.

Professional Competencies and Performance Areas**1. Safety: Protect Self and Other Workers from Accidents and Injuries.**

- A. Learn and follow workplace and safety procedures and policies, including the consistent and proper use of protective clothing and personal safety devices.
- B. Adhere to Occupational Safety and Health Administration (OSHA) General Industry safety standards, including all applicable regulations, policies, and procedures for health, emergency, and environmental compliance.
- C. Maintain a clean and orderly workplace, storing chemicals and corrosive or combustible materials properly and disposing of waste products according to company policies and local/federal laws and regulations.
- D. Use, store, and maintain hand-tools properly to eliminate trip hazards, injury, electrocution, or damage.
- E. Lift supplies and materials using proper body mechanics and assistive devices, such as hoists, lifts, forklifts, and straps.
- F. Report and respond promptly, safely, and appropriately to emergency or hazardous situations and troubleshoot any issues that may arise.
- G. Use lock-out/tag-out procedures when working with appropriate tools and equipment.
- H. Adhere to Manufacturing environment protocol such as contaminant-free manufacturing, and cleanroom protocol where applicable.

2. Test performance of Electrical, electronic, mechanical, or integrated systems or equipment.

- A. Test performance of electromechanical assemblies, using test instruments such as oscilloscopes, electronic voltmeters, or bridges.
- B. Develop, test, or program new assemblies.
- C. Select and use laboratory, operational, or diagnostic techniques or test equipment to assess electromechanical circuits, equipment, processes, systems, or subsystems.
- D. Operate, test, or maintain test equipment used for production application.
- E. Select tools and materials.

F. Read and understand job specifications.

3. Develop, test, or program new equipment.

A. Develop, test, or program new components, assemblies or equipment.

4. Routine Equipment Maintenance: Shut down, disassemble, and maintain equipment according to manufacturer's and employer's recommendations and protocols.

A. Inspect equipment and employ basic awareness of maintenance concepts.

B. Identify a malfunctioning machine. Engage emergency shutdown procedures when necessary.

C. Follow general lubrication guidelines.

D. Disassemble equipment and components.

E. Apply preventative maintenance practices effectively; utilize manufacturer-specific guidelines where appropriate.

F. Follow basic troubleshooting guides. Note and troubleshoot needed maintenance or repair services and inform appropriate individual or department, if necessary.

G. Assist and communicate with maintenance personnel regarding equipment malfunction(s).

H. Demonstrate ability to recognize and/or solve mechanical problem(s).

I. Use autonomous maintenance principles. Follow preventive maintenance schedule and document.

5. Build, test, or maintain electromechanical assemblies and equipment.

A. Build, test, modify, maintain, or repair electrical, electronic, or mechanical components, equipment, or systems to ensure proper functioning.

B. Repair, rework, or calibrate hydraulic or pneumatic assemblies or systems to meet operational specifications or tolerances.

C. Operate, test, or maintain electromechanical assemblies and equipment used in industrial settings.

6. Review technical documents to plan work.

A. Read blueprints, schematics, diagrams, or technical orders to determine methods and sequences of assembly.

7. Document design or operational test results.

A. Prepare written documentation of electromechanical test results.

8. Inspect finished products to locate flaws.

A. Inspect parts for surface defects.

B. Verify part dimensions or clearances to ensure conformance to specifications, using precision measuring instruments.

9. Install instrumentation or electronic equipment or systems.

A. Install electrical or electronic parts and hardware in housings or assemblies, using soldering equipment and hand tools.

10. Calibrate scientific or technical equipment.

A. Repair, rework, or calibrate hydraulic or pneumatic assemblies or systems to meet operational specifications or tolerances.

11. Assemble equipment or components.

A. Fabricate or assemble mechanical, electrical, or electronic components or assemblies.

B. Align, fit, or assemble component parts, using hand or power tools, fixtures, templates, or microscopes.

12. Fabricate devices or components.

A. Fabricate or assemble mechanical, electrical, or electronic components or assemblies.

13. Understand, follow, or create schematic drawings for electronics.

A. Understand, follow or inform electrical, electronic, or mechanical drawings or other related documents or graphics necessary for electromechanical design, using computer-aided design (CAD) software.

14. Operate industrial equipment.

A. Operate, test, or maintain test equipment used for production applications.

15. Follow operational methods.

A. Follow operational methods related to the environmental impact of engineering activities.

16. Follow technical methods or processes.

A. Follow and maintain inventory, records, or documentation systems.

17. Maintain operational records or record systems.

A. Establish and maintain inventory, records, or documentation systems.

18. Train personnel on proper operational procedures.

A. Train others to install, use, or maintain electromechanical assemblies.

19. Direct quality control activities.

A. Specify, coordinate, or conduct quality-control or quality-assurance programs and procedures.

20. Discuss design or technical features of products or services with technical personnel.

A. Consult with the engineering team to ensure that electromechanical equipment or systems meet design specifications.

21. Implement design or process improvements.

A. Assist engineers to implement electromechanical designs in industrial or other settings.

ARTICLE IV Related Instruction

Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will not be less than 699 hours. Related and supplemental instruction will be provided by Mission College and/or Foothill College.

Time spent in related and supplemental instruction may not be compensated.

Industry Career Overview	72 Hours
Electronic Systems	72 Hours
Applied Math	45 Hours
Analog Circuits and Semiconductor Devices	72 Hours
Electrical Motors and Control Systems	72 Hours
Microcontroller Systems	72 Hours
Digital Logic Systems	72 Hours
Vacuum Fundamentals	60 Hours
General Chemistry	108 Hours

DAS FILE # 101366

Occupation Work Experience for Mechatronic Technology

54 Hours

Total

699 Hours

ARTICLE V Ratio

The ratio of apprentices to professional workers shall be:

- 1) Ratio #1: Each professional worker may supervise two (2) apprentice(s)