#### **Division of Apprenticeship Standards (DAS)**

#### **Apprenticeship Program Summary Sheet**

To: Adele Burnes, Chief

From: Miguel Silva

**CC:** Program Planning and Review

**Date:** May 20, 2025

**Program Name:** Future Gearheads Apprenticeship Program

**Industry:** Transportation

**DAS File No.:** 101391

Grant Awardee: ☑ No ☐ Yes

#### Actions:

X	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:

Future Gearheads Apprenticeship Program 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:

We are fostering the next generation of automotive professionals through our Future Gearheads Apprentice program. Our mission is to inspire and educate people about the various aspects of custom car building and electrification by providing hands-on experience and mentorship from experienced mechanics and industry professionals. The programs including ZEV Service & Repair and Building & Electrifying Custom Classic Cars, align closely with the growing demand for skilled automotive technicians and mechanics. A vital part of our vision is to build a skilled and future-ready workforce...Future Gearheads.

Future Gearheads Apprenticeship Program 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:

• Electric Vehicle Mechanic O\*Net: 49-3023.00

Professional Worker Wage: \$55.00 per hour Proposed Apprentice Wage: \$25.00 per hour

Proposed No. of Apprentices: 6

Hybrid Vehicle Technician
 O\*Net: 49-3023.00

Professional Worker Wage: \$55.00 per hour Proposed Apprentice Wage: \$25.00 per hour

Proposed No. of Apprentices: 6

#### **Proposed Employers:**

- Big Daddy's Motor Cars (East), 19256 Donna Court, Morgan Hill, CA 95037
  - o Occupation(s): Electric Vehicle Mechanic, Hybrid Vehicle Technician
- Big Daddy's Motor Cars (West), 350 N Montgomery Street, San Jose, CA 95110
  - Occupation(s): Hybrid Vehicle Technician
- Epic Auto Repair, 16860 Monterey Road, Suite A, Morgan Hill, CA 95037
  - o Occupation(s): Electric Vehicle Mechanic, Hybrid Vehicle Technician

# **Future Gearheads Apprenticeship Program Standards**

# **Table of Contents**

Program Standards	1-6
List of Committee Members	Attachment A
Training Schedule and Working Conditions	
Electric Vehicle Mechanic	Attachment B-1
Hybrid Vehicle Technician	Attachment B-2
Local Education Agency Letter(s)	Attachment C
Sample Employer Agreement	Attachment D

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

Occupation	O*Net Code	Attachment
Electric Vehicle Mechanic	49-3023.00	B-1
Hybrid Vehicle Technician	49-3023.00	B-2

#### Article III Organization

For each employer participating in this program, an "Employer Agreement" (See Attachment D) will be provided to specify the information particular to that employer as noted herein, including the option to waive or offer participation on the committee, employer committee members will be selected as outlined in the rules & regulations.

#### Article IV Jurisdiction

These standards shall apply to the employer and employee organizations signatory hereto; their members, to other employers who subscribe hereto or who are party to a collective bargaining agreement with an employee organization(s) signatory hereto, and to all apprentice agreements hereunder.

Area Covered by Standards: All CA Counties

#### 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) serve in an advisory capacity with employers and employees in matters pertaining to these standards:
- 3) 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;
- 4) aid in the adjustment of apprenticeship disputes;
- 5) develop fair and impartial selection procedures and an affirmative action plan in accordance with existing laws and regulations and apply them uniformly in the selection of applicants for apprenticeship.

#### 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 that the rules and regulations do not conflict with these standards;
- 3) conduct orientations, workshops or other educational sessions for employers to explain the apprenticeship program's standards and the operation of the apprenticeship program;
- 4) pass upon the qualification of employers and, when appropriate, to suspend or withdraw approval;
- 5) conduct on-going evaluation of the interest and capacity of employers to participate in the apprenticeship program and to train apprentices on the job;
- 6) make periodic evaluations of each apprentice's on-the-job training and related and supplemental instruction;
- 7) ensure safe work site facilities, skilled workers as trainers at the work site, and safe equipment sufficient to train apprentices;
- 8) determine the qualifications of apprentice applicants and ensure fair and impartial treatment of applicants for apprenticeship selected through uniform selection procedures;
- 9) 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;
- 10)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;

- 11)establish and utilize a system for the periodic review and evaluation of the apprentice's progress in job performance and related instruction;
- 12) 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;
- 13)annually prepare and submit a Self-Assessment Review as well as a Program Improvement Plan to the Chief of the Division of Apprenticeship Standards;
- 14)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;
- 15) ensure training in the recognition of illegal discrimination and sexual harassment;
- 16) establish an adequate mechanism to be used for the rotation of the apprentice from work process to work process to ensure the apprentice of complete training in the apprenticeable occupation including mobility between employers when essential to provide exposure and training in various work processes in the apprenticeable occupation;
- 17) establish an adequate mechanism that will be used to provide apprentices with reasonably continuous employment in the event of a lay-off or the inability of one employer to provide training in all work processes as outlined in the standards;
- 18) comply with meaningful representation requirements for the interests of apprentices in the management of the program where apprentices are at least equally represented on an advisory panel established by the apprenticeship committee responsible for the operation of the program;
- 19) 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 of a 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 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, by the program sponsor, and by the apprentice and must be approved by the apprenticeship committee.
- 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 X Termination and Transfer of Agreements

- 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) 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 apprentice agreement.

## Article XI Lay-off

- 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 layoff.
- 2) There shall be no liability on the part of the employer, the program, or the committee for an injury sustained by an apprentice engaged in schoolwork at a time when the apprentice is unemployed.

#### Article XII 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 XIII 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 apprenticeship committee may decrease the term of apprenticeship for an individual apprentice not more than twelve and one-half percent  $(12\frac{1}{2}\%)$ .
- 3) 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 Chief of the Division of Apprenticeship Standards and the Interagency Advisory Committee on Apprenticeship.

#### Article XIV Equal Opportunity in Apprenticeship

The recruitment, selection, employment and training of apprentices during their apprenticeship shall be without discrimination because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation or veteran or military status.

Future Gearheads Apprenticeship Program will ensure selection procedures meet objective standards and maintain a fair and equitable selection process for all applicants.

#### Article XV Written Applications

Future Gearheads accepts ongoing online applications at https://bigdaddysmotorcars.com/internships/

#### Article XVI Records

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

Future Gearheads Apprenticeship Program 19256 Donna Court Morgan Hill, CA 95037

#### **Article XVII Annual Compliance**

Future Gearheads Apprenticeship Program will submit an annual compliance report to the Division of Apprenticeship Standards as requested by the Division.

Future Gearheads Apprenticeship Program agrees to accept electronic signatures for the Division of Apprenticeship Standards and all related Division of Apprenticeship Standards documents.

The foregoing standards are hereby agreed to and adopted by Future Gearheads Apprenticeship Program on March 5, 2025 (Committee approval date).

Employer Organization				
Future Gearheads Apprenticeship Program				
19256 Donna Court, Morgan Hill, CA 95037				
Les Stuart, Program Supervisor	Date			
The foregoing apprenticeship standards, being ir Labor Code, California Code of Regulations and				
(DAS approval date)				
Adele Burnes, Chief	 Date			
Division of Apprenticeship Standards	2 3.13			

# Attachment B-1 Training Schedule and Working Conditions

Future Gearheads Apprenticeship Program

#### Occupation

Occupation: Electric Vehicle Mechanic

O\*Net Code: 49-3023.00

#### Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency based with 270 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:**

\$ 55.00 per hour effective 3/5/2025.

#### **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.

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

1<sup>st</sup> period 0% Competencies \$ 25.00 /hour 2<sup>nd</sup> period 50% Competencies \$ 30.00 /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**

- 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.

#### Work Processes (Professional Competencies) and Performance Areas

Acronyms:

EV = Electric Vehicle

ICE= Internal Combustion Engine

#### 1) Safety in EV and Hybrid Vehicle Servicing

- a) Personal Protective Equipment
  - i) Insulated tools and gloves
  - ii) Arch flash protection
- b) Emergency response and first aid

#### 2) EV and Hybrid Vehicle Diagnostics

- a) Identifying common faults
  - i) Battery and degradation and faults
  - ii) Motor and inverter issues
  - iii) Hybrid systems malfunctions (e.g., ICE Integration)

#### 3) Battery Systems Repair and Maintenance

- a) Diagnosing battery health and performance
  - i) State of Charge (SOC) and State of Health (SOH)
- b) Battery pack disassembly and reassembly
  - i) Cell replacement and balancing
  - ii) Battery management system (BMS) calibration
- c) Thermal management system maintenance

# 4) Electric Motor and Power Electronics Servicing

- a) Diagnosing electric motor issues
  - i) Noise, vibration, and performance degradation
- b) Inverter and controller troubleshooting
  - i) Power and delivery and signal processing faults
- c) Repairing or replacing motor and electronic components

#### 5) Hybrid System Maintenance

- a) ICE integration in hybrid systems
  - i) Synchronization and transition issues
  - ii) Fuel system and exhaust maintenance
- b) Servicing hybrid-specific components
  - i) Transmission systems (eCVT)
  - ii) Hybrid starters and alternators
- c) Regenerative braking system servicing

#### 6) Auxiliary Systems and Software Updates

- a) HVAC system maintenance in EVs
  - i) Heat pumps and electric compressors
- b) Infotainment and telematics troubleshooting
- c) Software updates and system calibration

#### 7) Testing and Certification

- a) Post-repair testing protocols
  - i) High-voltage system testing
  - ii) Road testing and performance validation
- b) Service records and customer communication

#### **ARTICLE IV Related Instruction**

Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will not be less than 270 hours per year. Related and supplemental instruction will be provided by Future Gearheads Apprenticeship Program and overseen by Evergreen Valley Community College.

Time spent in related and supplemental instruction may be compensated.

COURSE HOU		
•	Introduction to EV and Hybrid Technology	120 Hours
•	Safety in EV and Hybrid Vehicle Servicing	60 Hours
•	EV and Hybrid Vehicle Diagnostics	40 Hours
•	Battery Systems Repair and Maintenance	40 Hours
•	Test and Certification	10 Hours
TOTAL HOURS:		270 Hours

#### **ARTICLE V** Ratio

The ratio of apprentices to professional workers shall be:

1) Ratio #1: Each professional worker may supervise six (6) apprentice(s)

# Attachment B-2 Training Schedule and Working Conditions

Future Gearheads Apprenticeship Program

#### Occupation

Occupation: Hybrid Vehicle Technician

**O\*Net Code:** 49-3023.00

#### Article I Term of Apprenticeship and Probation

The standard term of apprenticeship shall be competency based with 200 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:**

\$ 55.00 per hour effective 3/5/2025.

#### **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.

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

1<sup>st</sup> period 0% Competencies \$ 25.00 /hour 2<sup>nd</sup> period 50% Competencies \$ 30.00 /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**

- 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.

#### Work Processes (Professional Competencies) and Performance Areas

# Acronyms: EV = Electric Vehicle ICE= Internal Combustion Engine

#### 1) Safe disassembly of classic cars

a) Removing body panels, engines, drivetrain and interior

#### 2) Assessing rust damage and wear

- a) Identifying structural and cosmetic issues
- 3) Cataloging parts for reuse, replacement, or customization

#### 4) Chassis restoration and reinforcement

a) Frame repair, welding, and strengthening

#### 5) Upgrading suspension systems

- a) Air suspensions vs. coilovers
- b) Modernizing steering systems for improved handling

#### 6) Brake upgrades

a) Disc brake conversions and custom brake systems

#### 7) Engine options for classic cars

- a) Restoring original engines
- b) Engine swaps: Modern engines (LS swaps, crate engineers, EV conversions)

#### 8) Custom drivetrain installation

- a) Transmission upgrades (manual to automatic or vice versa)
- b) Differential and axle modifications

#### 9) Performance tuning and testing

# 10) Sheet metal repair and rust removal

- a) Metal shaping and patch panel fabrication
- b) MIG/TIG welding techniques

#### 11) Body modifications

- a) Chopping, channeling, and sectioning
- b) Fender flares, custom grilles, and bumpers

#### 12) Aligning and fitting panels

#### 13) Designing and building custom interiors

- a) Upholstery techniques: Seats, headliners, and carpets
- b) Custom dashboards and consoles

#### 14) Upgrading electronics

- a) Modern gauges, infotainment systems, and lighting
- b) Air conditioning and HVAC systems

#### 15) Reassembling the vehicle

a) Installing body panels, drivetrain, and interior components

#### 16) Final fit and finish

a) Alignments, weatherproofing, and sealing

#### 17) Testing and tuning

a) Road testing for performance, safety, and driveability

#### 18) Maintenance of converted EVs

- a) Battery care and diagnostics
- b) Common troubleshooting practices

#### 19) Vehicle teardown and ICE removal

- a) Safety protocols
- b) Managing and disposing of ICE components

#### 20) Vehicle preparation

- a) Stripping down the ICE components
- b) Reinforcing chassis and mounting points for EV components

#### 21) Installing EV Components

- a) Installing the electric motor
- b) Mounting and wiring the battery pack
- c) Setting up the controller and inverter
- d) Installing the charging system

#### 22) Electrical Wiring and Integration

- a) Wiring the high-voltage and low-voltage systems
- b) Configuring the battery management system (BMS)
- c) Integrating auxiliary systems (e.g., lights, dashboard, HVAC)

#### 23) Testing and Troubleshooting

- a) Safety checks and insulation testing
- b) Motor and system calibration
- c) Road testing and performance tuning

#### ARTICLE IV Related Instruction

Apprentices shall satisfactorily complete prescribed courses of related and supplemental instruction, which will not be less than 200 hours per year. Related and supplemental instruction will be provided by Future Gearheads Apprenticeship Program and overseen by Evergreen Valley Community College.

Time spent in related and supplemental instruction may be compensated.

Course	<u>Hours</u>
Introduction to Classic Restoration and Customization	30 Hours
Planning a Custom Classic Car Build	30 Hours
Showcasing and Legal Considerations	30 Hours
Introduction to EV Conversion	30 Hours
Understanding EV Components	40 Hours
Safety and Maintenance	10 Hours
Planning an EV Conversion	10 Hours
Legal and Certification Requirements	20 Hours
TOTAL HOURS:	200 Hours

#### **ARTICLE V** Ratio

The ratio of apprentices to professional workers shall be:

Each professional worker may supervise six (6) apprentice(s) 1) Ratio #1: