

## Occupation Appendix

### *Miami Dade College Apprenticeship Program - GNJ*

(Sponsor)

In the occupation of:

Occupation / Trade	NAICS Code	RAPIDS Code	O-Net Code
Automotive Technician Specialist	336310	1034CB	49-3023.02

### OUTREACH JURISDICTIONAL AREA

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Miami-Dade, Broward, Palm Beach  
(Counties)

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## DEFINITIONS

For the purposes of this appendix. The following definitions apply:

**COMPETENCY-BASED:** An apprenticeship training approach that requires the attainment of manual, mechanical, or technical skills and knowledge, as specified by an occupation standard, and demonstrated by an appropriate written and hands-on proficiency measurement. A minimum of 2,000 hours of on-the-job training is required.

## SECTION XVI – TERM OF APPRENTICESHIP AND TRAINING APPROACH – 6A-23.004(2)(b) FAC, 6A-23.004(2)(d) FAC

### On-the-Job-Training:

The term of the apprenticeship shall be a minimum of 2000 hours, approximately 12 months of continuous on-the-job employment (including the probationary period). Hours for related instruction are excluded.

### Related Technical Instruction:

Apprentices employed under these standards shall complete a minimum of 220 clock hours each year of supplemental instruction in technical subjects related to the occupation.

### Training Approach:

☐ Time-Based

☒ Competency-Based

☐ Hybrid

☐ Career-Lattice

### Related Instruction Delivery Method (select all that apply):

☒ Classroom

☐ Correspondence / Shop

☐ Web-Based Learning

☐ Other (specify) \_\_\_\_\_

### Related Instruction Delivery Provider (select all that apply):

☒ Sponsor / Employer Facility

☐ Community College / Technical School

☐ Vocational School (Technical College / Center)

### Related Instruction hours are provided (mark only one):

☐ During Work Hours;

☒ During Non-Work Hours; or

☐ During Work & Non-Work Hours

Are Wages Paid to the Apprentice During Related Technical Instruction? ☐ Yes ☒ No

**Location(s) where related instruction will occur:**

School Name:	Miami Dade College
Address:	300 N.E. 2 <sup>nd</sup> Avenue
Contact:	Alexia Q. Rolle, Ed.D.
Phone:	305-237-7208
E-mail:	apprenticeship@mdc.edu

School Name:	Kendall Imports, LLC, d/b/a Bean Automotive Group
Address:	13750 SW 137 <sup>th</sup> Ave. Miami, FL 33186
Contact:	Jiselle Perez
Phone:	305-728-6820
E-mail:	Jiselle.perez@beanauto.com

Course(s)/Program(s) Name(s):	Program Number:	CIP Number:
Automotive Technician Specialist	I47061R	0847060405

## SECTION XVII – PROBATIONARY PERIOD – 6A-23.004(2)(h, s) FAC

Apprentices employed under these standards shall be subject to a probationary period during the first 500 hrs. of the apprenticeship program, which cannot exceed twenty-five percent (25%) of the length of the program or one (1) year, whichever is shorter.

## SECTION XVIII – RATIO OF APPRENTICES – 6A-23.004(2)(g) FAC

It shall be the responsibility of the apprenticeship committee/sponsor to ensure that the allowable ratio of apprentices to journeymen is consistently maintained in the program as a whole, by each participating employer, and on the job site.

- For **non-construction related** programs and participating employers in each apprenticeable occupation, the ratio of apprentices to journeymen consistent with proper supervision, training, safety, and continuity of employment or applicable provisions in collective bargaining agreements is 3 Apprentice(s) to 1 Journeyman(s).

## SECTION XIX – QUALIFICATIONS AND SELECTION PROCEDURES – 6A-23.004(2)(j) FAC, 29 CFR § 30.5

Applicants for apprenticeship shall meet minimum qualifications as outlined in this Appendix. These qualification standards, and the score required on any standard for admission to the applicant pool must be directly related to job performance, as shown by a statistical relationship between the score required for admission and performance in the apprenticeship program.

**MINIMUM QUALIFICATIONS:** Apprentice applicants must be able to meet all employment guidelines and requirements. All applicants will be considered without attention to race, color, religion, sex, sexual orientation, gender identity, national origin, veteran, or disability status and afforded equal opportunity.

**a. Age (Required)**

The minimum age qualification required by the Apprenticeship Committee, Sponsor, or Participating Employer for persons entering the Apprenticeship Program is: 18 years.

**b. 181 English Language**

Applicants must be able to comprehend instructions in English for on the job and in related training classes, and to ensure personal and co-worker safety on the job.

**c. 181 Miami Dade College Admissions Requirements:**

Applicants must provide applicable admissions documentation for enrollment into the Miami Dade College Apprenticeship Program. Documentation must be evidence received (letter/email) from MDC Admissions reflecting acceptance to the College.

### **SELECTION PROCEDURES:**

**\*\* No matter which selection process an Apprenticeship Committee or Sponsor adopts, Veterans who have received discharges other than dishonorable discharges and Florida Registered Preapprentice Graduates shall, if qualified, receive the same priorities.**

The Apprenticeship Committee or Sponsor shall select apprentices from qualified applicants any of the following appropriate selection methods examples:

**1. [X] Selection from pool of current employees:**

The sponsor may select apprentices from an eligibility pool of the workers already employed or by the sponsor's established promotion policy. The sponsor adopting this method of selecting apprentices shall establish goals for the selection of minority and female apprentices, unless the sponsor concludes, in accordance with the provisions of 29 CFR

§§ 30.4(d), (e), and (f) that it does not have deficiencies in terms of underutilization of minorities and/or women (minority and nonminority) in the apprenticeship of journeyman occupations represented by the program.

**2. [X] Alternative Selection Methods:**

The Apprenticeship Committee or Sponsor may select apprentices by any other method, including its present selection method, including its present selection method, provided that the Sponsor meets the requirements listed in 6A-23.004 FAC. One method of Alternative Selection is as follows:

**a.[X] Intent to Hire:**

- i. Applicants for apprenticeship must apply to the Apprenticeship Committee or Sponsor;
- ii. The applicant is screened by the Apprenticeship Committee or Sponsor on the basis of selection criteria (applicant minimum qualifications) approved by the Registration Agency;
- iii. Applicants who meet the screening requirements, and are accepted by the Apprenticeship Committee or Sponsor as eligible for apprenticeship, are then referred to participating employers who are hiring;
- iv. If the employer states in writing to the Apprenticeship Committee or Sponsor, their intent to hire an eligible applicant referred, that applicant is hired by the participating employer and registered by the Apprenticeship Committee or Sponsor.

## SECTION XX – AFFIRMATIVE ACTION WORKFORCE ANALYSIS – 6A-23.004(2)(y) FAC

**Occupation:** Automotive Technician Specialist

<b>Underutilization Factors:</b>	
1. Total number of employers:	1
2. Total of employer(s) workforce in the occupation:	143
3. Total journeyworkers employed by the employer(s) in the occupation:	108
4. Total female journeyworkers employed by the employer(s) in the occupation:	2
5. Total minorities journeyworkers employed by the employer(s) in the occupation:	100
6. Total youth journeyworkers age 16-24 employed by the employer(s) in the occupation:	11
7. Total apprentices:	6
8. Total female apprentices:	2
9. Total minorities apprentices:	6
10. Under-utilization of females:	0%
11. Under-utilization of minorities:	0%

<b>Goals and Timetables (all future accessions at each interval):</b>	
1. Percentage of all future accessions and at each interval to be females:	25%
2. Percentage of all future accessions and at each interval to be minorities:	33%

**SECTION XXI – WORK PROCESS AND RELATED TECHNICAL INSTRUCTION – 6A-23.004(2)(c) FAC, 6A-23.004(2)(d) FAC**

**WORKPROCESSCHEDULE.**

**Occupation:** Automotive Technician Specialist

**O\*NETCODE:** 49-3023.00

**RAPIDS CODE:** 1034CB



**OJT for Automotive Technician Specialist**

Work Process Schedule:	Journeyworker's Si2n-off	Date
<b>1) Welcome</b> Human Resources Compliance Operations Safety		
<b>2) Engine Repair</b> Internal Combustion Engine Operation Basic Engine Components Tools, Materials, and Equipment Engine Removal and Disassembly Cylinder Head Diagnosis and Repair Cylinder Block Diagnosis and Repair Lubrication System Cooling System Engine Reassembly General Engine Mechanical Diagnosis		
<b>3) 4WD</b> Drivetrain Basics Transfer Case Propeller Shafts Differentials Axles, Drive Shafts & CV Joints 4WD Diagnosis		
<b>4) Steering and Suspension</b> Tire and Wheel Basics Tire and Wheel Service Suspension System Basics Types of Suspension Systems Steering System Basics Steering System Service Vehicle Dynamics and Handling Diagnosing Vehicle Handling Concerns Correction and Confirmation Advanced Diagnosis Techniques		



**5) Brake Systems**

Fundamentals

Master Cylinder

Disc Brakes

Drum Brakes

Parking Brake

Brake Diagnosis

Brake Booster

Hydraulic Brake-force Distribution

Anti-Lock Braking: Systems (*ABS*)

Electronically Controlled Systems Diagnosing Electronically Controlled Braking Systems Hybrid Braking Systems		
<b>6) Basic Electrical</b> Electrical Principles Measuring Electricity Electrical Circuits Inductors Wiring, Terminal and Connector Repairs The Battery The Starting System The Charging System Introduction to Electronic Signals		
<b>7) Body Electrical</b> Electrical Circuit Theory Using the Electrical Wiring Diagram Electrical Diagnostic Tools 6-Step Diagnostic Process Diagnosing Body Electrical Problems Diagnosing with Techstream		
<b>8) Multiplex</b> Electronic Control Units Signals & Waveforms Measuring Signals Using PicoScope Using an Inductive Clamp Pico Setup - Starter Draw Overview of Multiplex Communication Multiplex Circuit Diagnosis Electronic Systems Waveform Database & Library		
<b>9) Air Conditioning</b> Preparation Heating & Cooling Basics A/C System Components A/C System Inspection and Service A/C System Controls Automatic Temperature Control Diagnostics Additional Systems Hybrid Vehicle A/C Systems		
<b>10) Engine Performance 1</b> Diagnostic Tools and Resources On-Board Diagnostics (OBD II) Engine Control Module (ECM) Engine Control Systems Input Sensors Ignition Systems Fuel Systems Air Induction Systems		
<b>11) Engine Performance 2</b> Introduction On-Board Diagnostics (OBD) Comprehensive Components Monitor Diagnosis		

02 and A/F Sensor Diagnosis Fuel System Diagnosis Engine Misfire Diagnosis EVAP Diagnosis VVT-i Diagnosis Secondary Air Injection System Diagnosis Additional Systems		
<b>12) Smart Key</b> Components Smart Entry Smart Start Smart Key Generations Diagnostics Parts Replacement 2004 - 2009 Prius		
<b>13) Hybrid</b> Hybrid System Overview Hybrid Vehicle Safety HV Battery Prius Prime Plug-in Hybrid HV Inverter THS Diagnosis Hybrid Transaxle Engines Brake Systems Electric Power Steering Air Conditioning Body Electrical		
<b>14) Auto Transmissions</b> Introduction Customer Problem Analysis Torque Converter Simple Planetary Gear Set Complex Gear Sets Hydraulic Control Systems Electronic Control Systems Input Sensors Troubleshooting Process		
<b>15) Manual Transmissions</b> Drivetrain Configurations and Components Clutch Assembly Manual Transmission 140 Manual Transaxle Diagnosis Procedures		
<b>TOTAL MINIMUM HOURS: 2000</b>		

## RELATED TECHNICAL INSTRUCTION OUTLINE

**Occupation:** Automotive Technician Specialist

**O\*NETCODE:** 49-3023.00

**RAPIDS CODE:** 1034CB



### **RTI for Automotive Technician Specialist**

<b>Related Instruction Description:</b>	<b>Approximate Hours:</b>
<b>1) Engine Repair</b> Internal Combustion Engine Operation Basic Engine Components Tools, Materials, and Equipment Engine Removal and Disassembly Cylinder Head Diagnosis and Repair Cylinder Block Diagnosis and Repair Lubrication System Cooling System Engine Reassembly General Engine Mechanical Diagnosis	30
<b>2) 4WD</b> Drivetrain Basics Transfer Case Propeller Shafts Differentials Axles, Drive Shafts & CV Joints 4WD Diagnosis	10
<b>3) Steering and Suspension</b> Tire and Wheel Basics Tire and Wheel Service Suspension System Basics Types of Suspension Systems Steering System Basics Steering System Service Vehicle Dynamics and Handling Diagnosing Vehicle Handling Concerns Correction and Confirmation Advanced Diagnostic Techniques	10

<b>4) Brake Systems</b> Fundamentals Master Cylinder Disc Brakes Drum Brakes Parking Brake Brake Diagnosis Brake Booster Hydraulic Brake-force Distribution Anti-Lock Braking Systems (ABS) Electronically Controlled Systems Diagnosing Electronically Controlled Braking Systems Hybrid Braking Systems	15
<b>5) Basic Electrical</b> Electrical Principles Measuring Electricity Electrical Circuits Inductors	15

Wiring, Terminal and Connector Repairs The Battery The Starting System The Charging System Introduction to Electronic Signals	
<b>6) Body Electrical</b> Electrical Circuit Theory Using the Electrical Wiring Diagram Electrical Diagnostic Tools 6-Step Diagnostic Process Diagnosing Body Electrical Problems Diagnosing with Techstream	15
<b>7) Multiplex</b> Electronic Control Units Signals & Waveforms Measuring Signals Using PicoScope Using an Inductive Clamp Pico Setup - Starter Draw Overview of Multiplex Communication Multiplex Circuit Diagnosis Electronic Systems Waveform Database & Library	16
<b>8) Air Conditioning</b> Preparation Heating & Cooling Basics A/C System Components A/C System Inspection and Service A/C System Controls Automatic Temperature Control Diagnostics Additional Systems Hybrid Vehicle A/C Systems	10
<b>9) Engine Performance 1</b> Diagnostic Tools and Resources On-Board Diagnostics (OBD II) Engine Control Module (ECM) Engine Control Systems Input Sensors	25
<b>10) Engine Performance 2</b> Introduction On-Board Diagnostics (OBD) Comprehensive Components Monitor Diagnosis O2 and A/F Sensor Diagnosis Fuel System Diagnosis Engine Misfire Diagnosis EVAP Diagnosis VVT-i Diagnosis Secondary Air Injection System Diagnosis Additional Systems	25
<b>11) Smart Key</b> Components Smart Entry Smart Start	5

Smart Key Generations Diagnostics Parts Replacement 2004 - 2009 Prius	
<b>12) Hybrid</b> Hybrid System Overview Hybrid Vehicle Safety HY Battery Prius Prime Plug-in Hybrid HY Inverter THS Diagnosis Hybrid Transaxle Engines Brake Systems Electric Power Steering Air Conditioning Body Electrical	24
<b>13) Auto Transmissions</b> Introduction Customer Problem Analysis Torque Converter Simple Planetary Gear Set Complex Gear Sets Hydraulic Control Systems Electronic Control Systems Input Sensors Troubleshooting Process R&R Best Practices	10
<b>14) Manual Transmissions</b> Drivetrain Configurations and Components Clutch Assembly Manual Transmission Manual Transaxle Diagnostic Procedures	10
<b>TOTAL MINIMUM HOURS:</b>	220
<b>Apprentice must <u>participate</u> in the Automotive Service Excellence (ASE) Auto Maintenance and Light Repair (GI) certification.</b>  <b>** The passing of third-party industry certifications may not be used as a determining factor for the successful completion of the apprenticeship program. Third party industry certifications results may only be used as an instructional tool to assess individual apprentice progress and will not be used as a pass/fail determination.**</b>	

**SECTION XXII – APPRENTICE WAGE SCHEDULE - 6A-23.004(2)(e) FAC**

Apprentices shall be paid a progressively increasing schedule of wages based on a percentage and a dollar amount of the current hourly journeyworker wage rate, which is: \$ 19.25, as of 01 / 28 / 2021.

**Occupation:** Automotive Technician Specialist

Period of Training	Percent of Journeyworker's Rate	Apprentice's Hourly Rate
Competencies #1 - #5	72.50%	\$14.00
Competencies #6 - #14	75.30%	\$14.50

**SECTION XXIII – LISTING OF PARTICIPATING EMPLOYERS – 6A-23.004(2)(w) FAC**

Each Employer wishing to participate in this registered apprenticeship program shall sign a Participating Employer's Agreement with the Sponsor, unless otherwise provided for in a collective bargaining agreement and in so doing, will accept the requirements of the program standards. The Program Sponsor shall provide an executed copy of the signed Participating Employer's Agreement to the Registration Agency and the cancellation thereof.

Participating Employer	Participating Employer
Kendall Imports, LLC	



**OFFICIAL ADOPTION OF APPRENTICESHIP STANDARDS APPENDIX**

**Miami Dade College Apprenticeship Program - GNJ  
(Program)**

hereby adopts this Appendix on this \_\_\_\_\_ day of (\_\_\_\_\_/2021).

\_\_\_\_\_  
**Signature of Program Chairperson / Secretary**

\_\_\_\_\_  
**Director, Career and Technical Education**

\_\_\_\_\_  
**Title/Affiliation**

\_\_\_\_\_  
**Dr. Alexia Q. Rolle, Ed.D.**

\_\_\_\_\_  
**Printed Name**

REVIEWED BY: Lorena Vasquez

\_\_\_\_\_  
Apprenticeship & Training Representative

\_\_\_\_\_  
Date

**REVIEWED**

**APPROVED**

**REGISTERED**

FLORIDA DEPARTMENT OF EDUCATION  
DIVISION OF CAREER AND ADULT EDUCATION – APPRENTICESHIP

\_\_\_\_\_  
Authorized Official - Registration Agency

\_\_\_\_\_  
Date