
Appendix A

WORK PROCESS SCHEDULE

AND

RELATED INSTRUCTION OUTLINE



Appendix A

**WORK PROCESS SCHEDULE
AUTOMOTIVE TECHNICIAN
(Existing Title: Automotive Technician Specialist)
O*NET-SOC CODE: 49-3023.00 RAPIDS CODE: 1034CB**

This schedule is attached to and a part of these Standards for the above identified occupation.
On the Job Learning Description:

1. APPRENTICESHIP APPROACH

Time-based Competency-based Hybrid

2. TERM OF APPRENTICESHIP

The term of the occupation shall be defined by the attainment of all competencies of the position, which would be reasonably expected to occur within 2 to 3 years of OJL, supplemented by 175 hours of related instruction during the apprenticeship. The sponsor may recognize prior-learning achievements or demonstration of competencies to account for related instruction or OJL hours.

3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is: 1 Apprentice to 1 Journeyworker.

4. APPRENTICE WAGE SCHEDULE

Apprentices shall be paid a progressively increasing schedule of wages. Apprentices' starting wage should be a minimum of \$15.87 per hour. The journeyworker wage is \$17.83 per hour, which is to be paid to the apprentice after completion of the apprenticeship. The starting wage and journeyworker wage may be adjusted to accommodate each employer and shall be uploaded into the Rapids database. This wage scale is specifically for Denver, CO, and may vary based on minimum wage laws in different geographic locations, which will be indicated on Appendix D.

Term 2022:

1st Period	Starting Wage (0-18 months)	\$15.87/hr.
2nd Period	On level (18-36 months)	\$16.83/hr.
Completion	Full Competency	\$17.83/hr.

5. PROBATIONARY PERIOD

Every applicant selected for apprenticeship will serve a probationary period of 500 hours or one year, whichever is shorter.



6. SELECTION PROCEDURES

Please see page A-21



WORK PROCESS SCHEDULE
AUTOMOTIVE TECHNICIAN
(Existing Title: Automotive Technician Specialist)
O*NET-SOC CODE: 49-3023.00 RAPIDS CODE: 1034CB

Description: Automotive Technicians diagnose the causes of a wide variety of problems with vehicles and perform necessary repairs. Automotive Technicians have a deep knowledge of the various systems within a car or truck and can reference manuals and technical drawings in order to perform repairs. Automotive Technicians are responsible for safely and efficiently operating tools, keeping tools in proper working order, and efficiently producing repairs that meet quality standards.

On-The-Job Training: Apprentices will receive training in the various work experiences listed below. The order in which this training is given will be determined by the flow of work on the job and will not necessarily be in the order listed.

Ratings are:

- (4) Exceeds Expectations (Advanced)
- (3) Meets Expectations (Proficient)
- (2) Meets Some Expectations (Emerging)
- (1) Does Not Yet Meet Expectations (Novice)
- (0) Not applicable (No Skill)

4. Exceeds Expectations (Advanced): Consistently exceeds performance standard established for the time in position. Achieves results above and beyond what is required. Extends themselves in their roles to exceed personally and as a team to achieve exceptional results.

3. Meets Expectations (Proficient): Employee meets all expectations in a fully satisfactory way and is proficient in the outlined competencies.

2. Meets Some Expectations (Emerging): Meets the performance standards established for time in position. Handles routine tasks & some unexpected situations with the usual amount of supervision. Can continue to develop with coaching, training or more experience to gain proficiency.

1. Does Not Yet Meet Expectations (Novice): Occasionally meets some of the objectives related to this goal but does not meet others in a fully satisfactory way. This performance level generally indicates the need for additional coaching, training, or other plan for performance improvements.

0. Not Applicable (No Skill): Training in this competency has not yet begun.

Apprentices need to receive a “3” or better in each competency in order to complete the apprenticeship.



Apprentice Competency Evaluation

Core Competencies	Required for this company (Yes/No)	Rating	Supervisor Sign-off	Date
<p>Preventive Maintenance Inspection <i>Performs preventive maintenance inspection tasks based on shop standards, the vehicle, and the vehicle's usage.</i></p> <ul style="list-style-type: none"> ● With a high level of support from supervisor, performs required preventative maintenance inspection tasks (especially as state or federally regulated) in the appropriate order. ● Explains some basic theories relevant to preventive maintenance in specific models. ● Independently performs less complex required preventative maintenance inspection tasks (especially as state or federally regulated) in the appropriate order. ● With support of supervisor, performs more complex required preventative maintenance inspection tasks (especially as state or federally regulated) in the appropriate order. ● With support from supervisor, accurately documents data from preventive maintenance inspection, including defects. ● Independently performs required preventative maintenance inspection tasks (especially as state or federally regulated) in the appropriate order. ● Accurately documents data from preventive maintenance inspection, including defects. 				
<p>Preventive Maintenance Defect Corrections <i>Uses information from a preventive</i></p>				



<p><i>maintenance inspection to recognize and address defects and perform repairs.</i></p> <ul style="list-style-type: none"> ● With support of supervisor, recognizes defects during the preventive maintenance inspection. ● ● With support of supervisor, addresses basic defects. ● With minimal support of supervisor, addresses basic defects. ● With support of supervisor, addresses more complex defects. ● After performing the preventive maintenance inspection, independently addresses routine defects in an efficient way. ● Recognizes when a repair is not routine and engages supervisor for support in correcting it. 				
<p>Diagnosis <i>Appropriately verifies and diagnoses causes of varied issues.</i></p> <ul style="list-style-type: none"> ● With support of supervisor, uses investigation tools (ex. a trouble tree) to verify the customer/driver concern and create a repair progression. ● Identifies where to find the investigation tool for a given task. ● With support from supervisor, navigates to the correct investigation tool. ● With minimal support of supervisor, uses investigation tools (ex. a relevant software program to look up code) to create a repair progression. ● Articulates basic theory about the system causing the concern and how that theory connects to the repair progression. 				



<ul style="list-style-type: none"> • Independently uses more advanced investigation tools to create a repair progression. • Articulates more complex theory about the system causing the concern and how that theory connects to the repair progression. 				
<p>Diagnostic Repairs <i>Finds information on how to perform a corrective repair and performs corrective repairs based on diagnosis.</i></p> <ul style="list-style-type: none"> • Assists supervisor in addressing corrective repairs, including finding information on how to perform the repair. • Addresses corrective repairs with the support of supervisor. • Addresses corrective repairs with minimal support from supervisor. 				
<p>Tool Choice, Maintenance, and Care <i>Appropriately uses tools for essential job functions and takes necessary steps to maintain and care for tools.</i></p> <ul style="list-style-type: none"> • With support of supervisor, uses information from inspection of individual components to choose the right tool for a common task. • With support of supervisor, develops a basic organizational system for their tools. • With guidance from colleagues, cleans tools after use. • With support from colleagues, makes basic repairs to tools, or replaces tools when necessary. • Uses information from inspection of individual components to independently choose efficient tools for routine jobs. 				



<ul style="list-style-type: none"> • With support of supervisor, uses information from inspection of individual components to choose efficient tools for more complicated jobs. • Uses information from inspection of individual components to independently choose the right tool to be efficient for a variety of tasks. • Stores tools in a neat and organized way that increases efficiency and prevents the loss of tools. • Consistently cleans tools after use. • When necessary, repairs or replaces tools. • Creates a basic financial plan for buying the necessary tools to be a professional technician. 				
<p>Safety <i>Understands and upholds safe workplace practices in an automotive shop environment.</i></p> <ul style="list-style-type: none"> • Completes basic safety training. • Understands the importance of following safety procedures. • Takes precautions to limit risk to self and others. • Consistently follows all safety guidelines. • Identifies and uses correct tools to perform tasks safely. • Consistently maintains a clean workspace and equipment. • Follows safety best practices in all conditions and for jobs. 				
<p>Documentation <i>Appropriately documents work performed</i></p>				



<p><i>based on the complexity of the job.</i></p> <ul style="list-style-type: none">• Articulates the importance of documentation as related to safety and liability.• Puts documentation in the shop's preferred format.• If applicable: With a high level of support from supervisor, properly documents customer/driver concern about the vehicle.• With support of supervisor, properly documents vehicle information, defect, and correction.• With support of supervisor, creates basic time documentation for work performed.• With support of supervisor, creates documentation of parts and supplies used.• Documentation is clear and error-free and uses standard industry terminology to be understood by others.• If applicable: With support from supervisor, properly documents customer/driver concern about the vehicle.• With minimal support of supervisor, properly documents defect and correction.• With minimal support of supervisor, creates time documentation for work performed.• With minimal support of supervisor, creates documentation of parts and supplies used.				
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<ul style="list-style-type: none"> • If applicable: Properly documents customer/driver concern about the vehicle. • Properly documents defect and correction, including information from after-repair test drive. • Creates time documentation for work performed. • Creates documentation of parts and supplies used. 				
<p>Engine Repair <i>Applies theory to diagnose and perform repairs on components of the engine, including mechanical repair and diagnosis, fuel, ignition, and engine management system repair and diagnosis.</i></p> <ul style="list-style-type: none"> • Articulates basic theory about engines and what makes them work. • Identifies basic engine components and articulates the purpose of each component. • Connects basic theory about engines to individual components to articulate how they work. • Connects individual engine components to common engine failures. • Diagnoses engine failures with supervision. • Repairs and replaces individual engine components with supervision. 				
<p>Transmission/Transaxle Repair <i>Applies theory to diagnose and perform repairs on the mechanical and hydraulic systems as applicable. Performs transmission/transaxle repairs both in and off vehicle.</i></p>				



<ul style="list-style-type: none"> ● Articulates basic theory about the transmission/transaxle and what makes them work. ● Identifies basic transmission/transaxle components and articulates the purpose of each component. ● Connects basic theory about transmission/transaxle to individual components to articulate how they work. ● Connects individual transmission/transaxle components to common transmission/transaxle failures. ● Diagnoses transmission/transaxle failures with supervision. ● Repairs and replaces individual transmission/transaxle components with supervision. 				
<p>Suspension and Steering Repair <i>Applies theory to diagnose and perform repairs on suspension and steering. Identifies various types of suspension.</i></p> <ul style="list-style-type: none"> ● Articulates basic theory about suspension and steering and what makes them work. ● Identifies basic suspension and steering components and articulates the purpose of each component. ● Connects basic theory about suspension and steering to individual components to articulate how they work. ● Connects individual suspension and steering components to common suspension and steering failures. ● Diagnoses suspension and steering failures with minimal supervision. 				



<ul style="list-style-type: none"> • If applicable: Diagnoses airbag suspension failures with supervision. • Repairs and replaces individual suspension and steering components with minimal supervision. 				
<p>Tires <i>Diagnoses and performs repairs and replacements on tire and wheel failures/maintenance.</i></p> <ul style="list-style-type: none"> • Assists supervisor in diagnosing tire failures. • Assists supervisor in repairing and replacing tire failures/maintenance. • Assists supervisor in mounting and balancing tires and repairing flats. • Diagnoses tire failures with supervision. • Repairs and replaces tire failures/maintenance with supervision. • Mount and balance tires and repair flats with supervision. • Diagnoses tire failures with minimal supervision. • Repairs and replaces tire failures/maintenance with minimal supervision. • Mount and balance tires and repair flats with minimal supervision. • Identifies the age of the tire to make appropriate repair or replacement recommendations. 				
<p>Brake Repair <i>Applies theory to diagnose and perform repairs on hydraulic and air brake systems.</i></p>				



<ul style="list-style-type: none"> ● Articulates basic theory about hydraulic and (if applicable) air brakes and what makes them work. ● Identifies basic hydraulic and (if applicable) air brakes components and articulates the purpose of each component. ● Connects basic theory about hydraulic and (if applicable) air brakes to individual components to articulate how they work. ● Connects individual hydraulic and (if applicable) air brakes components to common brake failures. ● Diagnoses hydraulic and (if applicable) air brake failures with minimal supervision. ● Repairs and replaces individual hydraulic and (if applicable) air brake components with minimal supervision. 				
<p>Electric and Electronic Systems Repair <i>Applies theory to diagnose and perform repairs on electrical and electronic systems, including on the battery, lighting, and body systems.</i></p> <ul style="list-style-type: none"> ● Articulates basic theory about electric and electronic systems and what makes them work. ● Identifies basic electric and electronic system components and articulates the purpose of each component. ● Connects basic theory about electric and electronic systems to individual components to articulate how they work. ● With supervision, identifies which component is causing a common failure. 				



<ul style="list-style-type: none"> • Connects more complex theory to individual components to articulate how they work. • Diagnoses electric and electronic system failures with minimal supervision. • Repairs and replaces individual electric and electronic system components with minimal supervision. 				
<p>Heating and Air Conditioning Repair <i>Applies theory to diagnose and perform repairs on heating and air conditioning systems, including HVAC, refrigeration, and operating systems.</i></p> <ul style="list-style-type: none"> • Articulates basic theory about heating and air conditioning systems and what makes them work. • Identifies basic heating and air conditioning system components and articulates the purpose of each component. • Connects basic theory about heating and air conditioning systems to individual components to articulate how they work. • Connects individual heating and air conditioning system components to common heating and air conditioning failures. • Diagnoses heating and air condition failures with supervision. • Repairs and replaces individual heating and air conditioning components with supervision. 				

In addition to completing all core competencies, an apprentice based on the employer's assigned role will complete the following additional competencies.



Optional Competencies	Required for this company (Yes/No)	Rating	Supervisor Sign-off	Date
<p>Welding <i>Uses basic understanding of a MIG welding machine to set up the machine and do basic welds.</i></p> <ul style="list-style-type: none"> ● Identifies the individual components of a MIG (metal inert gas) welding machine. ● Articulates what individual components of a MIG welder are used for. ● Demonstrates understanding of the basic set up of a MIG welding machine with supervision. ● Sets up a MIG welding machine with supervision. ● Uses a MIG welder to do basic welds with supervision. 				

Apprenticeship Competencies – Career Readiness

In addition to mastering all the essential technical competencies outlined in the work processes, an apprentice must consistently demonstrate growth and proficiency in the following career readiness competencies to complete the apprenticeship.

Apprentices will be evaluated in these competencies semi-annually, and the supervisor will initial and date the accomplishment of the career ready competency at each review.

Ratings are:

- (4) Exceeds Expectations (Advanced)
- (3) Meets Expectations (Proficient)
- (2) Meets Some Expectations (Emerging)
- (1) Does Not Yet Meet Expectations (Novice)
- (0) Not applicable (No Skill)

4. Exceeds Expectations (Advanced): Consistently exceeds performance standard established for the time in position. Achieves results above and beyond what is required. Extends themselves in their roles to exceed personally and as a team to achieve exceptional results.

3. Meets Expectations (Proficient): Employee meets all expectations in a fully satisfactory way and



is proficient in the outlined competencies.

2. Meets Some Expectations (Emerging): Meets the performance standards established for time in position. Handles routine tasks & some unexpected situations with the usual amount of supervision. Can continue to develop with coaching, training or more experience to gain proficiency.

1. Does Not Yet Meet Expectations (Novice): Occasionally meets some of the objectives related to this goal but does not meet others in a fully satisfactory way. This performance level generally indicates the need for additional coaching, training, or other plan for performance improvements.

0. Not Applicable (No Skill): Training in this competency has not yet begun.

Apprentices need to receive a “3” or better in each competency in order to complete the apprenticeship.

ENTREPRENEURIAL SKILLS	Required for this employer (yes/no)	Rating	Supervisor Sign-off	Date
Critical Thinking/Problem Solving <ul style="list-style-type: none"> ● Recognize that problems can be identified, and possible solutions can be generated ● Define the problem using a variety of strategies ● Make connections between information gathered and personal experiences to apply and/or test solutions 				
Creativity / Innovation <ul style="list-style-type: none"> ● Demonstrate curiosity, imagination, and eagerness to learn more ● Build on personal experience to specify a challenging problem to investigate ● Engage in novel approaches, moves, directions, ideas and/or perspectives 				
Inquiry <ul style="list-style-type: none"> ● Recognize and describe cause-and-effect relationships and patterns in everyday experiences ● Investigate to form hypotheses, make observations, and draw conclusions ● Test hypotheses/prototype with planned process for getting feedback 				
Risk Taking <ul style="list-style-type: none"> ● Demonstrate a willingness to try new things ● Demonstrate flexibility, imagination, and inventiveness in taking on tasks and activities 				



<ul style="list-style-type: none"> Innovate from failure, connect learning across domains and recognize new opportunities 				
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PERSONAL SKILLS	Required for this employer (yes/no)	Rating	Supervisor Sign-off	Date
Self-Management / Self Awareness <ul style="list-style-type: none"> Accurately recognize one's own emotions, thoughts, and values and how they influence behavior Appropriately express one's own emotions, thoughts and values and identify how they influence behavior Assess personal strengths and limitations, with a well-grounded sense of confidence, optimism and a 'growth mindset' 				
Self-Direction <ul style="list-style-type: none"> Recognize personal characteristics, preferences, thoughts, and strengths Pursue opportunities to engage and learn interests Apply knowledge to set goals, make informed decisions and transfer to new contexts 				
Adaptability / Flexibility <ul style="list-style-type: none"> Recognize emotional response to ideas that differ from one's own Regulate reactions to differing perspectives Look for and value in different perspectives expressed by others 				
Perseverance / Resilience <ul style="list-style-type: none"> Resist distractions, maintain attention, and continue the task at hand through frustration or challenges Set goals and develop strategies to remain focused on learning goals Focus on learning goals by employing motivation and familiar strategies for engagement and evaluate progress, making necessary changes to stay the course 				

CIVIC/INTERPERSONAL SKILLS	Required for this employer (yes/no)	Rating	Supervisor Sign-off	Date
Collaboration / Teamwork <ul style="list-style-type: none"> Recognize how personal actions have had a positive or negative impact on others with feedback as needed 				



<ul style="list-style-type: none"> Recognize how members of a community rely on each other, considering personal contributions as applicable Follow a process identified by others to help generate ideas, negotiate roles and responsibilities, and respects consensus in decision making 				
Communication <ul style="list-style-type: none"> Articulate personal strengths and challenges using different forms of communication to express oneself Consider purpose, formality of context and audience, and distinct cultural norms when planning content, mode, delivery, and expression Establish goals for communication and plan out steps accordingly 				
Global / Cultural Awareness <ul style="list-style-type: none"> Compare attitudes and beliefs as an individual to others Identify and explain multiple perspectives (cultural, global) when exploring events, ideas, and issues Plan and evaluate complex solutions to global challenges that are appropriate to their contexts using multiple disciplinary perspectives (such as cultural, historical, and scientific) 				
Ethics <ul style="list-style-type: none"> Takes great care with organizational data Does not disclose any kind of personal or sensitive organizational information; understands that all data is confidential Demonstrates honesty and integrity in all interactions. If an error is made, prioritizes minimal impact to the organization over their own reputation 				

PROFESSIONAL SKILLS	Required for this employer (yes/no)	Rating	Supervisor Sign-off	Date
Task/Time Management <ul style="list-style-type: none"> Articulate task requirements and identify deadlines Develop and utilize basic task and time-management strategies effectively 				



<ul style="list-style-type: none"> Demonstrate task-management attributes associated with producing high-quality products including the abilities to: 1) Work positively and ethically 2) Manage time and projects effectively 3) multi-task 4) Clearly communicate with others 				
Self-Advocacy <ul style="list-style-type: none"> Appropriately express a range of emotions to communicate personal ideas/needs Ask questions to develop further personal understanding Demonstrate confidence in sharing ideas/feelings 				
Work Ethic <ul style="list-style-type: none"> Complete tasks with ongoing support Seek clarity on tasks and needs occasional support Demonstrate skill in assigned tasks and completes with little or no support 				

ACADEMIC SKILLS	Required for this employer (yes/no)	Rating	Supervisor Sign-off	Date
Core Academic Foundation <ul style="list-style-type: none"> Begins to use math and literacy skills to inform work Uses math and literacy skills to perform job tasks with frequent checks by supervisor Independently and consistently use math and literacy skills to perform tasks (with occasional checks for quality) 				



RELATED INSTRUCTION OUTLINE
AUTOMOTIVE TECHNICIAN
(Existing Title: Automotive Technician Specialist)
O*NET-SOC CODE: 49-3023.00 RAPIDS CODE: 1034CB

Related instruction - The curriculum is defined as a variety of classes, around which the exams and projects are based. By defining the related instruction this way, all related instruction competencies required of the students are met through a combination of coursework and/or hands-on exercises. Employers will select relevant courses for related instruction in the topics outlined below, totaling at least 144 hours over the duration of the apprenticeship. Selection of required topics and associated training time may vary by employer and apprentice. Employer may add additional occupation specific courses as necessary over and above those specified below.

RELATED INSTRUCTION	Approximate Hours
Apprenticeship Orientation	15
Workplace Essentials	45
Employer Onboarding	10
Electric and Electronic Systems Repair	45
Engine Repair	45
Safety	15
TOTAL RI HOURS	175

COURSE DESCRIPTIONS

Apprenticeship Orientation (15 hours)

Introduction to career-readiness to prepare students for working in a professional environment: apprenticeship and workplace expectations with a focus on growth mindset.

Workplace Essentials (45 hours)

Skills in common computer applications, effective workplace communication, time management, and conflict resolution.

Employer Onboarding (10 hours)

Orientation training provided to new employees by the employer.

Electric and Electronic Systems Repair (45 hours)

Applies theory to diagnose and perform repairs on electrical and electronic systems, including on the battery, lighting, and body systems,

Engine Repair (45 hours)

Applies theory to diagnose and perform repairs on components of the engine, including mechanical repair and diagnosis, fuel, ignition, and engine management system repair and diagnosis.

Safety (15 hours)

Understands and upholds safe workplace practices in an automotive shop environment.



SELECTION PROCEDURES

1. Apprenticeship opportunities are shared with students enrolled in CareerWise and its affiliated programs.
 2. Interested applicants complete the application process outlined in the apprenticeship recruitment notice. All suitably qualified applicants can apply to the apprenticeship opportunity.
 3. All applicants that meet the minimum qualifications will be selected for an employer interview.
 4. At the time of interview, applicants will be asked the same set of questions to ensure each applicant is treated equally.
 5. Applicants shall be rated and ranked based on interview scores.
- If required by the employer, the top candidates may be invited for a second interview.
6. The applicants will be notified of the hiring decision in a timely manner and all applicants will be treated equally with regard to notifications.
 7. All records regarding the selection of apprentices will be forwarded to and maintained by the Sponsor (see Sponsor Requirements Guide).

Direct Entry:

The Sponsor may allow direct entry applicants that are part of an employer's incumbent workforce, a qualified pre-apprenticeship program, or Job Corps graduates whose training, similarly, qualifies them for the occupation.