# **Work Process Schedule**

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| Transit Bus Technician | |
| **Job Description:** Diagnose, adjust, repair, maintain, and overhaul buses and bus equipment. They typically work in municipal transit repair shops. | |
| **RAPIDS Code:** 2073CB | **O\*NET Code:** 49-3031.00 |
| **Estimated Program Length:** 1 year | |
| **Apprenticeship Type:**  Competency-Based  Time-Based  Hybrid | |

Suggested On-the-Job Learning Outline

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| Demonstrates mastery of fundamental skills | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Correctly applies hand tools, power tools, and fasteners |  |  |
| 1. Demonstrates basic rigging and hoisting ability |  |  |
| 1. Demonstrates ability to apply basic industrial mathematics |  |  |
| 1. Demonstrates basic mechanical ability |  |  |
| 1. Demonstrates basic hydraulic and pneumatic ability |  |  |
| 1. Demonstrates basic electrical and electronic ability |  |  |
| 1. Demonstrates basic welding precautions |  |  |
| 1. Demonstrates basic vehicle towing |  |  |

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| Maintains and repairs low voltage electrical and electronic systems | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Performs general electrical/electronic diagnosis |  |  |
| 1. Performs battery diagnosis and repair |  |  |
| 1. Performs starting system diagnosis and repair |  |  |
| 1. Performs charging system diagnosis and repair |  |  |
| 1. Performs lighting systems diagnosis and repair |  |  |
| 1. Performs gauge and warning device diagnosis and repair |  |  |
| 1. Diagnoses and repairs related electrical/electronic systems |  |  |
| 1. Maintains, diagnoses, and repairs data communications systems (CAN, J1939, J 1708, etc.) |  |  |
| 1. Maintains, diagnoses, and repairs multiplex systems |  |  |
| 1. Maintains, diagnoses, and repairs fire suppression/ detection systems |  |  |
| 1. Maintains, diagnoses, and repairs (electronic) signage systems |  |  |
| 1. Maintains, diagnoses, and repairs fare collection equipment |  |  |
| 1. Maintains, diagnoses, and repairs radio communications systems |  |  |
| 1. Maintains, diagnoses, and repairs automatic stop announcement systems |  |  |
| 1. Maintains, diagnoses, and repairs video surveillance equipment |  |  |
| 1. Maintains, diagnoses, and repairs automatic passenger counters |  |  |
| 1. Maintains, diagnoses, and repairs wireless communication systems |  |  |

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| Maintains and repairs brake and air systems | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Maintains, diagnoses, and repairs air supply and service systems |  |  |
| 1. Maintains, diagnoses, and repairs mechanical/foundation disc and drum brakes |  |  |
| 1. Maintains, diagnoses, and repairs parking brakes |  |  |
| 1. Maintains, diagnoses, and repairs wheel bearings |  |  |

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| Maintains, diagnoses, and repairs propulsion systems | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Maintains, diagnoses, and repairs internal combustion (IC) bus engines (note: applies generally to diesel, CNG and gasoline engines – see unique competencies below for each propulsion type) |  |  |
| 1. Maintains, diagnoses, and repairs items specific to diesel engines |  |  |
| 1. Maintains, diagnoses, and repairs items specific to gasoline engines |  |  |
| 1. Maintains, diagnoses, and repairs items specific to CNG engines and related systems |  |  |
| 1. Maintains, diagnoses, and repairs items specific to hybrid propulsion systems |  |  |
| 1. Maintains, diagnoses, and repairs items specific to electric propulsion systems |  |  |
| 1. Maintains, diagnoses, and repairs items specific to fuel cell propulsion systems |  |  |
| 1. Overhaul of engine |  |  |

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| Maintains, diagnoses, and repairs automatic transmissions and drivetrains | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Maintains, diagnoses, and repairs automatic transmissions |  |  |
| 1. Maintains, diagnoses, and repairs drive shafts and universal joints |  |  |
| 1. Maintains, diagnoses, and repairs drive axles |  |  |
| 1. Overhaul of transmission |  |  |

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| Maintains, diagnoses, and repairs steering and suspension systems | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Maintains, diagnoses, and repairs steering systems |  |  |
| 1. Maintains, diagnoses, and repairs independent front suspensions |  |  |
| 1. Maintains, diagnoses, and repairs straight/I-beam axles |  |  |
| 1. Maintains, diagnoses, and repairs rear suspensions |  |  |
| 1. Diagnoses, adjusts, and repairs wheel alignment |  |  |
| 1. Maintains, diagnoses, and repairs wheels and tires |  |  |

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| Maintains, diagnoses, and repairs heating, ventilation and air conditioning (HVAC) systems | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Performs basic HVAC system verifications and testing |  |  |
| 1. Maintains, diagnoses, and repairs a/c system and related components |  |  |
| 1. Maintains, diagnoses, and repairs heating and engine cooling systems |  |  |
| 1. Maintains, diagnoses, and repairs HVAC operating systems and related controls |  |  |

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| Maintains, diagnoses, and repairs body and chassis equipment and systems | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Maintains, diagnoses, and repairs operator and passenger seating |  |  |
| 1. Maintains, diagnoses, and repairs stanchions, grab rails and modesty panels |  |  |
| 1. Maintains, diagnoses, and repairs windows |  |  |
| 1. Maintains, diagnoses, and repairs door systems |  |  |
| 1. Maintains, diagnoses, and repairs flooring, paneling and roof hatches |  |  |
| 1. Maintains, diagnoses, and repairs wheelchair lifts, ramps and restraints |  |  |
| 1. Maintains, diagnoses, and repairs passenger signaling (stop request) systems |  |  |
| 1. Inspects and repairs frame/chassis members |  |  |
| 1. Welding |  |  |
| 1. Collision repair and paint refinishing |  |  |

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| Conducts preventive maintenance inspections | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Inspects engine systems |  |  |
| 1. Inspects body interior and exterior |  |  |
| 1. Inspects electrical/electronic systems |  |  |
| 1. Inspects frame and chassis |  |  |
| 1. Conducts road test |  |  |

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| Maintains, diagnoses, and repairs articulated bus systems | | |
| **Competencies** | **Date Completed** | **Initial** |
| 1. Follows safe procedures |  |  |
| 1. Maintains, diagnoses, and repairs mechanical components of the articulation joint |  |  |
| 1. Maintains, diagnoses, and repairs hydraulic components of the articulation joint |  |  |
| 1. Maintains, diagnoses, and repairs the electronic control system |  |  |
| 1. Maintains, diagnoses, and repairs articulation bellows |  |  |

Suggested Related Instruction Outline

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| Provider | |
| **Name:** | |
| **Address:** | |
| **Email:** | **Phone Number:** |
| **Suggested Related Instruction Hours:** 144 | |

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| **Course Number** | **Course Title** | **Contact Hours** |
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