**TESDA-OP CO-01-F11**

**(Rev.No.00-03/08/17)**

**COMPETENCY-BASED CURRICULUM**

**A. Course Design**

Course Title : AUTOMOTIVE SERVICING NC I

Nominal Duration : 469 Hours

Qualification Level : NC I

Course Description :

This course is designed to enhance the knowledge, skills and attitudes of an individual in the field of automotive servicing in accordance with industry standards. It covers basic, common and core competencies such as: performance of basic engine servicing through removal and reinstallation of components for gas and diesel engines.

This course is also designed to enhance the basic and common knowledge, skills and attitudes of an individual in the field of Automotive.

To obtain this, all units prescribed for this qualification must achieved

Trainee Entry

Requirements: Trainees or student should possess the following

requirements:

1. At least a senior high school graduate;
2. At least 17 years old upon enrollment;
3. Passed the Admission Examinations:
4. Interview;
5. Medical Exam;
6. With good moral character;
7. Ability to communicate both oral and written;
8. Can perform basic mathematical computation and
9. Physically and mentally healthy fit

This list does not include specific institutional requirements such as educational attainment, appropriate work experience, and other that may be required of the trainees by the school or training center delivering the TVET program.

**COURSE STRUCTURE:**

# BASIC COMPETENCIES

**(28 hours)**

| Units of Competency | Module Title | Learning Outcomes | Nominal Duration |
| --- | --- | --- | --- |
| 1. Receive and respond to workplace communication | * 1. Receiving and responding to workplace communication | * + 1. Follow routine spoken messages     2. Perform workplace duties following written notices | 8 hours |
| 1. Work with others | 2.1 Working with others | * + 1. Develop effective workplace relationship     2. Contribute to work group activities | 6 hours |
| 1. Demonstrate work values | 3.1 Demonstrating work values | * + 1. Define the purpose of work     2. Apply work values/ethics     3. Deal with ethical problems     4. Maintain integrity of conduct in the workplace | 8 hours |
| 1. Practice basic   housekeeping procedures | 4.1 Practicing basic housekeeping procedures | * + 1. Sort and remove unnecessary items     2. Arrange items     3. Maintain work areas, tools and equipment     4. Follow standardized work process and procedures     5. Perform work spontaneously | 6 hours |

# COMMON COMPETENCIES

**(162 hours)**

| **Units of Competency** | **Module Title** | **Learning Outcomes** | **Nominal Duration** |
| --- | --- | --- | --- |
| 1. Validate vehicle specification | * 1. Validating vehicle specification | * + 1. Check body type of the vehicle     2. Check vehicle engine type     3. Check vehicle specifications     4. Complete validation of vehicle specification | 17 hours |
| 1. Move and position vehicle | 2.1 Moving and positioning vehicle | * + 1. Prepare vehicle for operation     2. Position vehicle     3. Park and stop the vehicle | 40 hours |
| 1. Utilize automotive tools | 3.1 Utilizing automotive tools | * + 1. Prepare automotive tools     2. Use automotive tools     3. Maintain automotive tools | 16 hours |
| 1. Perform mensuration and calculation | * 1. Performing mensuration and calculation | * + 1. Select measuring instruments     2. Carry out measurements and calculation     3. Maintain measuring instruments | 43 hours |
| 1. Utilize workshop facilities and equipment | * 1. Utilizing workshop facilities and equipment | * + 1. Perform pre-operation activities     2. Use facilities and equipment     3. Conduct post-operation activities | 19 hours |
| 1. Prepare servicing parts and consumables | 6.1 Preparing servicing parts and consumables | * + 1. Identify parts and consumables     2. Retrieve and withdraw parts and consumables     3. Complete work process | 13 hours |
| 1. Prepare vehicle for servicing and releasing | 7.1 Preparing vehicle for servicing and releasing | * + 1. Receive vehicle     2. Prepare vehicle for servicing     3. Prepare vehicle for releasing | 14 hours |

# CORE COMPETENCIES

**(279 hours)**

| **Units of Competency** | **Module Title** | **Learning Outcomes** | **Nominal Duration** |
| --- | --- | --- | --- |
| 1. Perform pre-delivery inspection | 1.1 Performing pre-delivery inspection | 1.1.1 Prepare for pre-delivery inspection  1.1.2 Perform physical and functional inspection  1.1.3 Complete work processes | 33 hours |
| 2. Perform periodic maintenance of automotive engine | 2.1 Performing periodic maintenance of automotive engine | 2.1.1 Prepare for inspection and service engine  2.1.2 Inspect engine  2.1.3 Service engine  2.1.4 Complete work processes | 136 hours |
| 3. Perform periodic maintenance of drive train | 3.1 Performing periodic maintenance of drive train | 3.1.1 Perform pre-service preparations  3.1.2 Conduct periodic maintenance of drive trains  3.1.3 Perform post-service activities | 28 hours |
| 1. Perform periodic maintenance of brake system | 4.1 Performing periodic maintenance of brake system | 4.1.1 Prepare for periodic maintenance of brake system  4.1.2 Carry-out periodic maintenance procedures  4.1.3 Complete periodic maintenance procedure | 28 hours |
| 1. Perform periodic maintenance of suspension system | 5.1 Performing periodic maintenance of suspension system | * + 1. Perform pre-periodic maintenance of suspension system     2. Apply periodic maintenance procedures     3. Perform work to completion | 30 hours |
| 1. Perform periodic maintenance of steering system | 6.1 Performing periodic maintenance of steering system | * + 1. Perform pre-periodic maintenance of steering system     2. Apply periodic maintenance procedures     3. Perform work to completion | 24 hours |

**Assessment Methods:**

* Written Examination
* Demonstration of practical skills
* Direct observation
* Oral questioning
* Interview
* Virtual Assessment (Using Canvas for online automated questionnaire assessment)
* Demonstration with oral questioning
* Third-party report
* Role play involving the participation of individual member to the attainment of organizational goal
* Case studies and scenarios as a basis for discussion of issues and strategies in teamwork
* Socio-drama and socio-metric methods
* Sensitivity techniques
* Written Test
* Case Formulation
* Life Narrative Inquiry
* Standardized test
* Demonstration or simulation with oral questioning
* Case problems involving work improvement and sustainability issues
* Psychological and behavioral Interviews
* Performance Evaluation
* Review of portfolios of evidence and third-party workplace reports of on-the-job performance
* Sensitivity analysis
* Organizational analysis
* Standardized assessment of character strengths and virtues applied

**Course Delivery**

Lecture

Video presentation

Workshop visit

Actual training

Film viewing

Interactive Lecture

Small Group Discussion

Appreciative Inquiry

E-learning

Case Study

Group Discussion

Practical exercises

Discussion (Online Zoom- Trainer Facilitated)

Individual Work (Reading, Assignment - Self Paced)

Simulation (Online)

Webinar

Group Work (Online Canvas - Trainer Facilitated)

Brainstorming (Online - Trainer Facilitated)

Role playing (Online - Trainer Facilitated or Self-Paced)

5 Role-playing

Project/ Case Study

Demonstration (Face to Face)

Reporting

Presentation (Online powerpoint presentation/Zoom)

Modular

Dual training

Distance learning

**Resources:**

| **QTY** | **TOOLS** | **QTY** | **EQUIPMENT** | **QTY** | **MATERIALS** |
| --- | --- | --- | --- | --- | --- |
| 1 pc | Tire pressure gauge | 1 unit | Vehicle lifter | 15 L | Engine oil |
| 1 set | Fender cover | 1 unit | Air compressor | 5 L | Automatic transmission oil |
| 1 pc | Seat cover | 1 unit | Training vehicle | 10 L | AT fluid |
| 1 pc | Shift knob cover | 2 | Engine simulator | 2 L | Manual transmission fluid (MTF) |
| 1 pc | Floor mat cover | 2 pcs | Air hose reel | 2 L | CVT fluid |
| 2 pcs | Pliers | 1 | Engine oil drain bucket | 5 L | Brake fluid |
| 2 sets | Screwdriver | 1 unit | Gear oil pump | 5 L | Coolant |
| 3 | Belt tension gauge | 2 set | Jack | 2 | Oil pan |
| 3 | Spark plug wrench | 2 pcs | Wedge | 3 | Oil filter |
| 3 | Oil filter wrench | 2 pcs | Trouble light | 3 | Fuel filter |
| 3 | Spark plug gauge | 1 set | Service creeper | 2 boxes | Torque marker |
| 3 | Spark plug cleaner | 1 unit | Computer | 12 | Spark plug |
| 5 sets | Standard set of hand tools | 1 unit | Projector | 3 | Drive belt |
| 3 pcs | Caddy |  |  | 1 L | Molycoat grease |
| 1 pc | Oil bucket |  |  | 2 cans | Brake cleaner |
| 1 pc | Drain bucket |  |  | 15 pcs | Service data sheet |
| 2 sets | Box wrench |  |  | 5 pcs | Repair manual |
| 2 sets | Open end wrench |  |  |  | **PPEs** |
| 2 sets | Socket wrench |  |  | 15 pcs | Bump cap |
| 4 sets | Tire wrench |  |  | 5 pcs | Safety cap |
| 2 sets | Torque wrench |  |  | 20 pcs | Rags |
|  |  |  |  | 25 pairs | Gloves |
|  |  |  |  | 25 pairs | Cotton arm sleeves |
|  |  |  |  | 25 pcs | Apron |
|  |  |  |  | 25 pairs | Safety shoes |
|  |  |  |  | 25 pcs | Safety goggles |

Facilities:

| **Facility** | **Description** | | **Quantity** |
| --- | --- | --- | --- |
| Workshop/  Laboratory Area | 6.8 x 4.8  32.64 sq. m  16.28 x 25.06  408 sq. m | | 1 |
| Lecture Room | 9.4 x 9  84.6 sq. m | | 1 |
| Learning Resource Center | 15.65 x 3.28  51.33 sq. m | | 1 |
| Wash/Comfort Room | 4.7 X 8.3  39 sq. m | | 1 |
| Storage/Tool Room | 6.8 x 4.5  30.6 sq. m | 9.7 x 3.6  35.79 sq. m | 1 |
| Circulation Area | 131.7 sq. m | | 1 |

**Trainer’s Qualifications:**

Must be computer literate

Must be physically and mentally fit

**Must be a holder of Automotive Servicing NC I**

**Must have undergone training on Training Methodology I (TM I)**

**Holder of National TVET Trainers Certificate (NTTC) Level 1 in**

**Automotive Servicing NC II; and**

**Must have at least 1 year industry experience in automotive servicing**

**within the last 3 years**

1. **Modules of Instruction**

**Basic Competencies: 28 hours**

Unit of Competency: **Receive and Respond to Workplace Communication**

Modules Title: Receiving and Responding to Workplace Communication

Module Descriptor: This module covers the knowledge, skills and attitudes

required to receive, respond and act on verbal and written

communication.

Nominal Duration: 8 hours

Summary of Learning Outcomes:

LO1. Follow routine spoken messages

LO2. Perform workplace duties following written notices

Details of Learning Outcomes:

LO1. Follow routine spoken messages

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Required information is gathered by listening attentively and correctly interpreting or understanding information/instructions.  2. Instructions / information are properly recorded.  3. Instructions are acted upon immediately in accordance with information received.  4. Clarification is sought from the workplace supervisor on all occasions when any instruction / information is not clear. | Knowledge of  organizational  policies/guidelines in  regard to processing  internal/external  information  Ethical work  practices in handling  communications  Communication  process  Conciseness in receiving and clarifying messages/information/communication Accuracy in recording messages / information Communication skill | The following resources MUST be provided:  > Pens  > Note pads  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct Observation  Written  evaluation  Observation  Oral interview  Third Party Report  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Perform workplace duties following written notices

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Written notices and instructions are read and interpreted correctly in accordance with organizational guidelines.  2. Routine  written instruction  are followed in  sequence.  3. Feedback is given  to workplace  supervisor based  on the instructions  / information  received. | * Knowledge of organizational policies/guidelines in regard to processing internal/external information * Ethical work practices in handling communications * Communication process * Conciseness in receiving and clarifying messages/ information/ communication * Accuracy in recording messages/ information | The following resources MUST be provided:  > Pens  > Note pads  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Group  discussion  Lecture  Demonstration   * Independent Reading * Discussion Forum * E-learning * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct Observation  Written  evaluation  Observation  Oral interview  Third Party Report  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Basic Competencies: 28 hours**

Unit of Competency: **Work with Others**

Modules Title: Working with Others

Module Descriptor: This module covers the skills, knowledge and attitudes

required to develop workplace relationship and contribute in

workplace activities.

Nominal Duration: 6 hours

Summary of Learning Outcomes:

LO1. Develop effective workplace relationship

LO2. Contribute to work group activities

Details of Learning Outcomes:

LO1. Develop effective workplace relationship

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Duties and responsibilities are done in a positive manner to promote cooperation and good relationship. 2. Assistance is sought from the work group when difficulties arise and addressed through discussions. 3. Feedback provided by others in the team is encouraged, acknowledged and acted upon. 4. Differences in personal values and beliefs are respected and acknowledged in the development. | Reasons why cooperation and good relationships are important Knowledge of the organization’s policies, plans and procedures Understanding how to elicit and interpret feedback Knowledge of workgroup member’s responsibilities and duties Importance of demonstrating respect and empathy in dealings with colleagues Understanding of how to identify and prioritize personal development opportunities and options  Ability to read and understand the organization’s policies and work procedures Write simple instructions for particular routine tasks Interpret information gained from correspondence Communication skills to request advice, receive feedback and work with a team Planning skills to organized work priorities and arrangement Technology skills including the ability to select and use technology appropriate to a task Ability to relate to people from a range of social, cultural and ethnic backgrounds | The following resources should be provided:  >Access to relevant workplace or appropriately simulated  environment where assessment can take place  >Materials relevant to the proposed activity or task  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Group  discussion  Demonstration   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observations of work activities of the individual member in relation to the work activities of the group  Observation of simulation and/or role play involving the participation of individual member to the attainment of organizational goal  Case studies and scenarios as a basis for discussion of issues and strategies  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Contribute to work group activities

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Support is provided to team members to ensure work group goals are met.  2. Constructive contributions to work group goals and tasks are made according to organizational requirements.  3. Information relevant to work is shared with team members to ensure designated goals are met. | Reasons why cooperation and good relationships are important Knowledge of the organization’s policies, plans and procedures  Understanding how to elicit and interpret feedback Knowledge of workgroup member’s responsibilities and duties Importance of demonstrating respect and empathy in dealings with colleagues Understanding of how to identify and prioritize personal development opportunities and options  Ability to read and understand the organization’s policies and work procedures Write simple instructions for particular routine tasks Interpret information gained from correspondence Communication skills to request advice, receive feedback and work with a team Planning skills to organized work priorities and arrangement Technology skills including the ability to select and use technology appropriate to a task Ability to relate to people from a range of social, cultural and ethnic backgrounds | The following resources should be provided:  >Access to relevant workplace or appropriately simulated  environment where assessment can take place  >Materials relevant to the proposed activity or task  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Group  discussion  Interaction  Demonstration   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observations of work activities of the individual member in relation to the work activities of the group  Observation of simulation and/or role play involving the participation of individual member to the attainment of organizational goal  Case studies and scenarios as a basis for discussion of issues and strategies  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Basic Competencies: 28 hours**

Unit of Competency: **Demonstrate Work Values**

Modules Title: Demonstrating Work Values

Module Descriptor: This module covers the outcomes required in demonstrating and

living by desirable values and ethics in the workplace.

Nominal Duration: 8 hours

Summary of Learning Outcomes:

LO1. Define the purpose of work

LO2. Apply work values/ethics

LO3. Deal with ethical problems

LO4. Maintain integrity of conduct in the workplace

Details of Learning Outcomes:

LO1. Define the purpose of work

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.One’s unique sense of purpose for working and the why’s of work are identified, reflected on and clearly defined for one’s development as a person and as a member of society.  2.Personal mission is in harmony with company’s values. | Work values and  ethics  Company  performance and  ethical standards  Company policies  and guidelines  Fundamental rights  at work including  gender sensitivity  Work  responsibilities/job  functions  Corporate social  responsibilities  Company code of  conduct/values  Balancing work and  family  responsibilities  Interpersonal skills Communication skills Self awareness, understanding and acceptance Application of good manners and right conduct | The following resources should be provided:  >Workplace or assessment location  >Case studies/Scenarios  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Portfolio Assessment  Interview  Third Party Reports  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Apply work values/ethics

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Work values/ethics/concepts are classified and reaffirmed in accordance with the transparent company ethical standards, policies and guidelines.  2. Work practices are undertaken in compliance with industry work ethical standards, organizational policy and guidelines.  3. Personal behavior and relationships with co-workers and/or clients are conducted in accordance with ethical standards, policy, and guidelines.  4. Company resources are used in accordance with transparent company ethical standards, policies, and guidelines. | Work values and  ethics  Company  performance and  ethical standards  Company policies  and guidelines  Interpersonal skills  Communication  skills  Self- awareness,  understanding and  acceptance  Application of good  manners and right  conduct | The following resources should be provided:  >Workplace or assessment location  >Case studies/Scenarios  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Group  discussion  Demonstration  Role Play   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Portfolio Assessment  Interview  Third Party Reports  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Deal with ethical problems

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Company ethical standards, organizational policy and guidelines on the prevention and reporting of unethical conduct are accessed and applied in accordance with transparent company ethical standard, policies and guidelines.  2. Work incidents / situations are reported and/or resolved in accordance with company protocol/ guidelines.  3. Resolution and/or referral of ethical problems identified are used as learning opportunities. | Work values and ethics Company performance and ethical standards Company policies and guidelines Fundamental rights at work including gender sensitivity Work responsibilities/job functions Corporate social responsibilities Company code of conduct/values Balancing work and family responsibilities  Interpersonal skills Communication skills Self- awareness, understanding and acceptance Application of good manners and right conduct | The following resources should be provided:  >Workplace or assessment location  >Case studies/Scenarios  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Group  discussion  Lecture    Demonstration  Role Play   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Online presentation * Online lecture * Online Activity * Lecture/ Video Conference * E-learning | Portfolio Assessment  Interview  Third Party Reports  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO4. Maintain integrity of conduct in the workplace

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Personal work practices and values are demonstrated consistently with acceptable ethical conduct and company’s core values.  2.Instructions to co-workers are provided based on ethical, lawful and reasonable directives.  Company values / practices are shared with co-workers using appropriate behavior and language. | Work values and ethics Company performance and ethical standards Company policies and guidelines Fundamental rights at work including gender sensitivity  Work responsibilities/job functions Corporate social responsibilities Company code of conduct/values Balancing work and family responsibilities  Interpersonal skills Communication skills Self- awareness, understanding and acceptance Application of good manners and right conduct | The following resources should be provided:  >Workplace or assessment location  >Case studies/Scenarios  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Group  discussion  Lecture  Demonstration  Role Play   * Independent Reading * E-learning * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity | Portfolio Assessment  Interview  Third Party Reports  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Basic Competencies: 28 hours**

Unit of Competency: **Practice Basic Housekeeping Procedures**

Modules Title: Practicing Basic Housekeeping Procedures

Module Descriptor: This module covers the knowledge, skills and attitudes

required to apply the basic housekeeping procedures.

Nominal Duration: 6 hours

Summary of Learning Outcomes:

LO1. Sort and remove unnecessary items

LO2. Arrange items

LO3. Maintain work area, tools and equipment

LO4 Follow standardized work process and procedures

LO5 Perform work spontaneously

Details of Learning Outcomes:

LO1. Sort and remove unnecessary items

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Reusable, recyclable materials are sorted in accordance with company/office procedures.  2.Unnecessary items are removed and disposed of in accordance with company or office procedures. | Principles of 5S Work process and procedures Safety signs and symbols General OSH principles and legislation Environmental requirements relative to work safety  Basic communication skills Interpersonal skills Reading skills required to interpret instructions | The following resources MUST be provided:  >Facilities, materials tools and equipment necessary for the activity  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Role Play   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Third party report  Interview  Demonstration with questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Arrange items

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Items are arranged in accordance with company / office housekeeping procedures.  2. Work area is arranged according to job requirements.  3. Activities are prioritized based on instructions.  4. Items are provided with clear and visible identification marks based on procedure.  5. Safety equipment and evacuation passages are kept clear and accessible based on instructions. | Principles of 5S Work process and procedures Safety signs and symbols General OSH principles and legislation Environmental requirements relative to work safety  Basic communication skills Interpersonal skills Reading skills required to interpret instructions | The following resources MUST be provided:  >Facilities, materials tools and equipment necessary for the activity  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Demonstration   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * • E-learning | Third party report  Interview  Demonstration with questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Maintain work area, tools and equipment

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Cleanliness and orderliness of work area is maintained in accordance with company/office procedures.  2. Tools and equipment are cleaned in accordance with manufacturer’s instructions/manual.  3. Minor repairs are performed on tools and equipment in accordance with manufacturer’s instruction/manual.  4. Defective tools and equipment are reported to immediate supervisor. | Principles of 5S Work process and procedures Safety signs and symbols  General OSH principles and legislation Environmental requirements relative to work safety  Basic communication skills Interpersonal skills Reading skills required to interpret instructions | The following resources MUST be provided:  >Facilities, materials tools and equipment necessary for the  activity  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Group   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Third party report  Interview  Demonstration with questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO4. Follow standardized work process and procedures

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Materials for common use are maintained in designated area based on procedures.  2. Work is performed according to standard work procedures.  3. Abnormal incidents are reported to immediate supervisor. | Principles of 5S Work process and procedures Safety signs and symbols General OSH principles and legislation Environmental requirements relative to work safety Accident/Hazard reporting procedures  Basic communication skills Interpersonal skills Reading skills required to interpret instructions Reporting/ recording accidents and potential hazards | The following resources MUST be provided:  >Facilities, materials tools and equipment necessary for the  activity  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Demonstration   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Third party report  Interview  Demonstration with questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO5. Perform work spontaneously

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| Work is performed as per instruction.  4.Company and office decorum are followed and complied with.  5.Work is performed in accordance with occupational health and safety (OHS) requirements. | Principles of 5S Work process and procedures Safety signs and symbols General OSH principles and legislation Environmental requirements relative to work safety Accident/Hazard reporting procedures  Basic communication skills Interpersonal skills Reading skills required to interpret instructions Reporting/ recording accidents and potential hazards | The following resources MUST be provided:  >Facilities, materials tools and equipment necessary for the activity  Full Online Delivery requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Demonstration   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * E-learning * Online lecture * Online Activity | Third party report  Interview  Demonstration with questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**COMMON COMPETENCIES**

**Common Competencies: 162 hours**

Unit of Competency: **Validate Vehicle Specification**

Modules Title: Validating Vehicle Specification

Module Descriptor: This module covers the knowledge and skills in identifying types of

automotive vehicles.

Nominal Duration: 17 hours

Summary of Learning Outcomes:

LO1. Check body type of the vehicle

LO2. Check vehicle engine type

LO3. Check vehicle specifications

LO4 Complete validation of vehicle specification

Details of Learning Outcomes:

LO1. Check body type of the vehicle

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Kind of vehicle is determined according to job order.  2. Vehicle dimensions is determined according to manual.  3. Vehicle weight is determined according to the manual.  4. Body shape is determined according to the manual.  5. Power train is determined according to the manual.  6. Safety practices are applied following OSHS. | Kind of vehicle - Aerodynamics - Vehicle Dynamics - Body shapes - Power train - Major dimensions  Vehicle specifications - Vehicle performance - Weight & Measurements  Automotive history Documentation/ Accomplishing checklist Resources information - Bulletin - Shop manual OSHS PPEs Attitude: Patience Attention to details  Identifying kind of vehicle, dimensions, weight, body shape, and power train Accomplishing checklist Estimating visually dimensions and masses Utilizing resource information Wearing PPEs Applying safety practices | The following resources should be provided:  >Workplace: Real or simulated work area  >Appropriate vehicle or model equivalent  >Materials relevant to the activity  >Resource information, references, and manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  Presentation   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct Observation  Interview  Third Party Report  Written exam  Demonstration with Oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Check vehicle engine type

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Engine type is identified according to industry standards.  2. Engine fuel/energy system is identified according to manual.  3. Engine components are identified following manual. | Principles of internal combustions Principles of Electricity and motors History of engines Hybrid technology Resources information - Bulletin - Shop manual  Identifying engine type, parts & components Identifying fuel systems or energy systems Utilizing resource information | The following resources should be provided:  >Workplace: Real or simulated work area  >Appropriate vehicle or model equivalent  >Materials relevant to the activity  >Resource information, references, and manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  Presentation   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct Observation  Interview  Third Party Report  Written exam  Demonstration with Oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Check vehicle specifications

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| VIN plate is inspected for specification of vehicle according to manual.  2. Vehicle specification is verified according to vehicle reference materials.  3. Vehicle modifications and conversions are checked following the manual.  4. Vehicle conversions are inspected following the manual | Fundamentals of Automotive engineering: - Understanding of power & torque - Gear Ratios - Vehicle Regulations - Knowledge of vehicle performance - Knowledge in Vehicle manufacturing process - Knowledge of vehicle use - Automotive history  Knowledge in specifications Reading of brochure, owner’s manuals Reading of Resources information - Bulletin - Shop manual  Reading vehicle reference materials Conducting vehicle inspection for modification and conversion Comparing actual vehicle and specification sheets Utilizing resource information | The following resources should be provided:  >Workplace: Real or simulated work area  >Appropriate vehicle or model equivalent  >Materials relevant to the activity  >Resource information, references, and manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  Presentation   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct Observation  Interview  Third Party Report  Written exam  Demonstration with Oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO4. Complete validation of vehicle specification

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Vehicle ownership is verified using repair order and vehicle reference materials.  2. Dealers check sheet is accomplished following industry standards.  3. Dealers check sheet is submitted to immediate superior following industry standards. | Reporting to immediate superior Documentation/ Accomplishing checklist Attitude: Accuracy  Verifying vehicle ownership Accomplishing dealers check sheet Reporting skills | The following resources should be provided:  >Workplace: Real or simulated work area  >Appropriate vehicle or model equivalent  >Materials relevant to the activity  >Resource information, references, and manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation   * Online presentation * Online lecture * Online Activity * E-learning | Direct Observation  Interview  Third Party Report  Written exam  Demonstration with Oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Common Competencies: 162 hours**

Unit of Competency: **Move and Position Vehicle**

Modules Title: Moving and Positioning Vehicle

Module Descriptor: This module involves the skills and knowledge and attitudes required

to move and position vehicle safely including systematic and efficient

control of all vehicle functions.

Nominal Duration: 40 hours

Summary of Learning Outcomes:

LO1. Prepare vehicle for operation

LO2. Position vehicle

LO3. Park and stop the vehicle

Details of Learning Outcomes:

LO1. Prepare vehicle for operation

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Vehicle multi point inspection is conducted according to industry practice.  2.Cockpit Drill is performed according to industry practice.  3.Vehicle is start-up following owner’s manual.  4.Parking brake is engaged according to industry practice. | Revolutions per minute during idle Manual, automatic and CVT Transmission Vehicle parts, components and functions Inspection procedures Owner’s manual Safety procedures  Performing Cockpit Drill Conducting Vehicle Multi point inspection Starting the engine Using owner’s manual | The following resources MUST be provided:  >Workshop range/area  >Service working bay  >Appropriate vehicle for moving and positioning  >Owner’s manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  discussion  Demonstration  Video  Presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Demonstration with oral questioning  Written exam  Interview  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Position vehicle

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Workshop hazards are identified and avoided as per standard operating procedures.  2.Vehicle is moved according to Occupational Health and Safety Standards.  3.Workshop rules and regulations are recognized according to standard procedures. | Revolutions per minute in running condition Kilometer per hour Estimation/ timing Manual, automatic and CVT Transmission Diesel, Gasoline and EV engines Vehicle parts, components and functions Defensive driving Owner’s Manual Safety procedures  Skills in positioning vehicle Vehicle positioning estimation skill Identifying workshop signs and markings | The following resources MUST be provided:  >Workshop range/area  >Service working bay  >Appropriate vehicle for moving and positioning  >Owner’s manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  Presentation   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Demonstration with oral questioning  Written exam  Interview  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Park and stop the vehicle

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Vehicle is positioned according to parking rules and regulations.  2. Parking brake is engaged according to industry practice.  3. Electrical devices are turned off based on manufacturer’s specification.  4. Vehicle is shut-off following owner’s manual. | Vehicle parts, components and functions Inspection procedures Owner’s Manual Procedure in shutting-off vehicle Safety procedures Parking rules and regulations  Vehicle positioning estimation skills Identifying parking signs and markings | The following resources MUST be provided:  >Workshop range/area  >Service working bay  >Appropriate vehicle for moving and positioning  >Owner’s manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  Presentation   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Online presentation * Online lecture * Online Activity * E-learning * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Demonstration with oral questioning  Written exam  Interview  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Common Competencies: 162 hours**

Unit of Competency : **Utilize Automotive Tools**

Modules Title: Utilizing Automotive Tools

Module Descriptor: This module covers the knowledge and skills in selecting and using

automotive power tools, hand tools and tool keeping.

Nominal Duration: 16 hours

Summary of Learning Outcomes:

LO1. Prepare automotive tools

LO2. Use automotive tools

LO3. Maintain automotive tools

Details of Learning Outcomes:

LO1. Prepare automotive tools

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Automotive tools are identified according to their classification and specification.  2.Automotive tools and attachments are selected according to job requirements.  3.Automotive tools and attachments are inspected for defects and damages according to manufacturer and work place procedures.  4.Safety practices are applied following OSHS. | Understanding power to size ratio Leverage Types of power tools and hand tools Uses of automotive power tools and hand tools Defects and damages of automotive tools and attachments Handling of tools Interpretation of contents of users manuals Safety procedures Wearing of PPE  Identifying defects or damages of tools before use Knowledgeable in proper handling of tools Identifying tools required for the job Inspecting the area were power tools will be use. | The following resource MUST be provided.  >Appropriate power tools and hand tools  >Tools and materials relevant for training  >Proper place for storage and disposal  >Work shop manuals  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Visual aids  Videos   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written examination  Demonstrations with oral questioning  Direct observation  Third party report  Interview  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Use automotive tools

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Attachments are mounted to automotive tools according to job requirements.  2.Power tools are connected to power sources according to operation’s manual.  3.Power tools are operated according to operation’s manual.  4.Hand tools are utilized according to operation’s manual.  5.PPEs are worn in accordance to OSHS. | Use of automotive tools Application of Torque and pressure Unit conversion of torque English and metric system Types of hand tools Types of power tools Fundamentals of automotive hand tools and power tools Interpretation of contents of users manuals OSHS Resources Information - Bulletin - Shop manual  Analytical skills Technical literacy Mounting attachments to automotive tools Connecting power tools to power sources Operating power tools Utilizing hand tools Wearing PPEs Applying safety practices Following manuals | The following resource MUST be provided.  >Appropriate power tools and hand tools  >Tools and materials relevant for training  >Proper place for storage and disposal  >Work shop manuals  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Visual aids  Videos   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written examination  Demonstrations with oral questioning  Direct observation  Third party report  Interview  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Maintain automotive tools

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Automotive tools and attachments are cleaned according to user’s manual.  2.Automotive tools and attachments are checked for serviceability according to workplace and manufacturers procedures.  3.Defects and damages are reported to immediate superior following industry standards.  4.Automotive tools and attachments are stored according to workplace procedures.  5.Safety practices are applied following OSHS.  Wastes are disposed following environmental law and regulations. | Different types of power tools and hand tools Techniques in tool Arrangement Fundamentals of automotive tools Cleaning of automotive tools Labeling and arranging of power tools and hand tools Safety practices Procedures in maintaining of power tools and hand tools Tagging of damaged/worn power tools and hand tools Reporting damage power tools and hand tools Proper disposal of damaged tools Proper disposal of chemicals used for cleaning OSHS Environmental law and regulations 5S of good housekeeping 3Rs  Sorting of tools Skills in creating reports Cleaning of tools Checking, cleaning and storing automotive tools and attachments Reporting defects and damages Disposing wastes Practicing safety procedures | The following resource MUST be provided.  >Appropriate power tools and hand tools  >Tools and materials relevant for training  >Proper place for storage and disposal  >Work shop manuals  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | > Lecture  > Visual aids  > Videos   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written examination  Demonstrations with oral questioning  Direct observation  Third party report  Interview  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Common Competencies: 162 hours**

Unit of Competency: **Perform Mensuration and Calculation**

Modules Title: Performing Mensuration and Calculation

Module Descriptor: This module covers the knowledge and skills on how to use

automotive measuring tools.

Nominal Duration: 43 hours

Summary of Learning Outcomes:

LO1. Select measuring instruments

LO2. Carry out measurements and calculation

LO3. Maintain measuring instruments

Details of Learning Outcomes:

LO1. Select measuring instruments

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Component to be measured is identified based on job requirements.  2. Automotive measuring instrument is identified based on job requirements.  3. Correct specifications are obtained from repair manual.  4. Measuring tools are calibrated in line with job requirements.  5. Measuring instruments are checked for accuracy and adjusted according to manufacturer’s manual.  6. Defective measuring instruments are reported and returned to toolkeeper following industry standards.  7. Safety practices are applied following OSHS. | Category of measuring instruments Types and uses of measuring instruments Shapes and Dimensions Use of user’s manual Workshop procedures in reporting defective instruments Characteristics of defective measuring instruments Procedure in preparing report OSHS in calibrating measuring instruments Calibration of measuring tools Inspection of measuring tools Segregation and reporting of defective measuring instruments  Identifying and selecting measuring instruments Visualizing objects and shapes Calibration skills Identifying defective measuring instruments Reporting skills Applying safety practices Obtaining correct specifications Checking measuring instruments for accuracy Reporting and segregating defective measuring instruments | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Automotive Measuring Tools & equipment  >Materials relevant to the activity  >Training vehicle or simulators  >User’s manual  >Repair manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Demonstration  Video  presentation  Lecture  Discussion  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstration with oral questioning  Third party report  Interview  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Carry out measurements and calculation

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Automotive measuring instrument is selected to achieve required outcome in line with job requirements.  2. Accurate measurements are obtained in line with job requirements.  3. Calculation needed to complete work tasks are performed using mathematical operations.  4. Numerical computation is self-checked and corrected for accuracy following manufacturer’s workshop manual.  5. Tools’ limit of accuracy are read following manufacturer’s workshop manual.  6. Report is submitted to immediate supervisor following industry standard operating procedure.  7. Safety practices are applied following OSHS. | Formulas for volume, areas, perimeters of plane and geometric figures Different automotive measuring instruments Calculation & measurement Four fundamental operation Linear measurement Dimensions Unit conversion Ratio and proportion Handling of measuring instruments Tools’ limit of accuracy OSHS PPEs  Performing calculation Applying formulas for volume, areas, perimeters of plane and geometric figures Handling measuring instruments Selecting automotive measuring instruments Obtaining accurate measurements Performing calculation Self-checking and correcting numerical computation Reading tools’ limit of accuracy Applying OSHS Wearing of PPEs | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Automotive Measuring Tools & equipment  >Materials relevant to the activity  >Training vehicle or simulators  >User’s manual  >Repair manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Demonstration  Video  presentation  Lecture  Discussion  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstration with oral questioning  Third party report  Interview  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Maintain measuring instruments

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Measuring instruments are handled following manufacturer’s manual.  2. Measuring instruments are cleaned following manufacturer’s manual.  3. Instruments are stored according to manufacturer’s specifications and standard operating procedures.  4. Safety practices are applied. | Types of measuring instruments and their uses Safe handling procedures in using measuring instruments Four fundamental operation of mathematics Formula for volume, area, perimeter and other geometric figures 5S of good housekeeping Waste management Storing of measuring instruments OSHS  Handling and maintaining measuring instruments Disposing wastes Practicing good housekeeping Applying safety practices | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Automotive Measuring Tools & equipment  >Materials relevant to the activity  >Training vehicle or simulators  >User’s manual  >Repair manual  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Demonstration  Video  Presentation  Lecture  Discussion   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstration with oral questioning  Third party report  Interview  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Common Competencies: 162 hours**

Unit of Competency: **Utilize Workshop Facilities and Equipment**

Modules Title: Utilizing Workshop Facilities and Equipment

Module Descriptor: This module deals with inspecting and cleaning of work area including

tools, equipment and facilities. Storage of equipment, including

operating of basic workshop equipment.

Nominal Duration: 19 hours

Summary of Learning Outcomes:

LO1. Perform pre-operation activities

LO2. Use facilities and equipment

LO3. Conduct post-operation activities

Details of Learning Outcomes:

LO1. Perform pre-operation activities

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Workshop facilities are prepared according to work requirements.  2. Equipment are prepared according to work requirements.  3. Equipment are calibrated following users’ manual.  4. Minor repairs are carried out based on users’ manual.  5. Defective equipment are reported to immediate supervisor following company procedures.  6. Safety practices are applied following OSHS. | Different areas of automotive service facilities. Preparation procedures of automotive service facilities Different equipment in the automotive service facilities Preparation procedures of automotive equipment Minor repairs of automotive equipment Report of defective equipment Reporting procedures for defective equipment OSHS practices related to the preparation of facilities and equipment Workshop facilities and equipment  Preparing work area Preparing equipment Calibrating equipment Repairing minor equipment issues Reporting defective equipment Applying safety practice Following manuals | The following resources should be provided:  >Workplace: Real or simulated work area  >Appropriate Equipment  >Materials relevant to the activity  >Manuals/references  >PPEs  >Fire Extinguishers  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstration with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Use facilities and equipment

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Equipment is operated according to operation manual.  2. Facilities are utilized according to workshop procedures.  3. Equipment performance is monitored following users’ manual.  4. Facilities functionalities are monitored following workplace procedures.  5. Safety practices are applied following OSHS. | Operate Equipment Identify facilities required for task Evaluate equipment operation Inspect facility functionalities OSHS practices related to operation of facilities and equipment Manuals in utilizing facility and equipment Monitoring procedure of equipment’s performance Evaluate equipment operation Inspection of facility functionalities  Operating equipment Utilizing facility Monitoring equipment performance Monitoring functionalities of facility Practicing safety Following manual | The following resources should be provided:  > Workplace: Real or simulated work area  > Appropriate Equipment  > Materials relevant to the activity  >Manuals/references  > PPEs  > Fire Extinguishers  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstration with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Conduct post-operation activities

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Workshop facilities are restored according to 5S of good housekeeping.  2.Equipment are cleaned and stored according to good housekeeping.  3.Wastes are disposed following waste management procedure and OSHS.  4.PPEs and Safety practices are applied following OSHS.  5.Report is prepared based on workshop procedure | 5S of Good housekeeping 3Rs/ Waste segregation and disposal Restoration of the facilities Maintenance and storage of Equipment OSHS Preparation of report  Restoring workshop facilities properly Cleaning Equipment Storing equipment in proper location Disposing waste materials Reporting facilities and equipment condition Practicing safety Practicing 5S and 3Rs | The following resources should be provided:  >Workplace: Real or simulated work area  >Appropriate Equipment  >Materials relevant to the activity  >Manuals/references  >PPEs  >Fire Extinguishers  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstration with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Common Competencies: 162 hours**

Unit of Competency: **Prepare Servicing Parts and Consumables**

Modules Title: Preparing Servicing Parts and Consumables

Module Descriptor: This module of competency covers the ability to prepare parts and

consumables for gasoline and diesel engines in conducting

preventive maintenance.

Nominal Duration: 13 hours

Summary of Learning Outcomes:

LO1. Identify parts and consumables

LO2. Retrieve and withdraw parts and consumables

LO3. Complete work process

Details of Learning Outcomes:

LO1. Identify parts and consumables

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Parts and consumables are determined according to job requirements.  2. Availability of parts and consumables are confirmed based on stock.  3. Indirect materials are identified according to job requirements.  4. Hazardous parts and consumables are identified according to International standards.  5. Safety practices are applied according to OSHS. | Job requirements Safety practices Understanding manuals Hazardous parts and consumables Solid waste management act (RA 6969) Wearing of PPE’s OSHS Proper storage of materials Chemical contents of consumables Composition of consumables Quality of parts and consumables Computation for quantity of parts and consumables Vehicle specifications Identifying Part no. Awareness in part number Updated type of parts and consumables  Determining parts and consumables Reading and interpreting job requirements Identifying required parts & consumables Understanding safety practices Determining quantity and quality of parts and consumables Confirming availability of parts and consumables Identifying indirect materials Identifying hazardous parts and consumables Applying safety practices Understanding safety practices Following manuals | The following resources should be provided:  >Workplace: Real or simulated work area  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Video  Presentation  Actual training   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Interview  Written examination  Demonstration with oral questioning  Third party report  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Retrieve and withdraw parts and consumables

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Requisition slip is prepared according to identified parts and consumables.  2.Withdrawal of parts and materials are recorded.  3. Quantity of parts and consumables are validated according to job requirements.  4. Parts and materials are handled following safety procedures. | Job requirements Safety practices Understanding manuals Hazardous parts and consumables Solid waste management act (RA 6969) Wearing of PPE’s Updated types of parts & consumables for proper usage  Reading and interpreting requisition slip Validating quantity of parts and materials Handling parts and consumables | The following resources should be provided:  >Workplace: Real or simulated work area  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Video  Presentation  Actual training   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Interview  Written examination  Demonstration with oral questioning  Third party report  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Complete work process

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Used parts and consumables are labeled and segregated.  2.Used parts are packed and returned to customers.  3.Consumables are collected for recycling  4.PPEs are worn following OSHS.  5.Wastes are disposed according to RA 6969. | Labeling and segregation of used parts and consumables Job requirements Safety practices 3Rs Solid waste management act (RA 6969) Wearing of PPE’s  Waste segregation and disposal of parts & consumables according to RA 6969 | The following resources should be provided:  Workplace: Real or simulated work area  Materials relevant to the activity  Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Video  presentation  Actual training   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Interview  Written examination  Demonstration with oral questioning  Third party report  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Common Competencies: 162 hours**

Unit of Competency: **Prepare Vehicle for Servicing and Releasing**

Modules Title: Preparing Vehicle for Servicing and Releasing

Module Descriptor: This module covers the knowledge, skills, and attitudes needed in

identifying and preparing the vehicle for servicing and releasing.

Nominal Duration: 14 hours

Summary of Learning Outcomes:

LO1. Receive vehicle

LO2. Prepare vehicle for servicing

LO3. Prepare vehicle for releasing

Details of Learning Outcomes:

LO1. Receive vehicle

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Vehicle is located following company standard.  2. Checklist is validated for exterior and interior items in accordance with vehicle checklist.  3. Job Order is checked for proper assignment according to work classification.  4. Work bay for vehicle is designated based from Job Order.  5. Vehicle is moved on the designated work bay. | Identification of basic vehicle components Types of defects Read & understand Job Order Flat rate time Use of PPEs Adherence to safety procedures Vehicle checklist Work classification Work bay Attitudes: Patient Attention to details Honest Time Conscious  Completing vehicle checklist Classifying work to be performed Assigning work bay Validating checklist for exterior and interior items Checking job order for proper assignment Identifying vehicle Moving vehicle to designated work bay | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & Equipment  >Materials relevant to the activity  >Manuals and references  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Demonstration with Oral questioning  Interview  Written Evaluation  Third Party Report  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Prepare vehicle for servicing

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Protective covers are installed prior to servicing based on workshop operating standards.  2. Vehicle is positioned and set-up for lifting according to repair order.  3. Vehicle is lifted for servicing following manufacturer’s manual.  4. Safety practices are applied following safety procedures. | Familiarization on equipment & facilities Time estimation of completion Vehicle tagging Types of protective covers Setting-up of vehicle for lifting Read & understand repair order Use of PPEs Use of safety gears OSHS Adherence to safety procedures Attitudes:  Patient Attention to details Honest Time Conscious  Understanding of vehicle status Installation of protective covers Positioning vehicle Operating lifter Moving vehicle Setting-up vehicle for lifting Practicing safety | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & Equipment  >Materials relevant to the activity  >Manuals and references  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Demonstration with Oral questioning  Interview  Written Evaluation  Third Party Report  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Prepare vehicle for releasing

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Job done is confirmed according to repair order.  2. Quality check is done based from repair order.  3. Transfer of vehicle to wash bay is coordinated according to SOP.  4. Vehicle is endorsed to quality control person following workplace procedure. | Familiarization of equipment & facilities Read & understand repair order Confirmation of job done Quality standards checking Coordination of transferring vehicle Endorsement procedures for vehicle Attitudes: Patient Attention to details Honest Time Conscious  Confirming job done Performing quality checking Coordinating transfer of vehicle to wash bay Endorsing and turning-over vehicle | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & Equipment  >Materials relevant to the activity  >Manuals and references  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Demonstration with Oral questioning  Interview  Written Evaluation  Third Party Report  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**CORE COMPETENCIES**

**Core Competencies: 279 hours**

Unit of Competency: **Perform Pre-Delivery Inspection**

Modules Title: Performing Pre-Delivery Inspection

Module Descriptor: This competency module covers the ability to carry out pre-delivery

inspection in order to ensure that the brand new and pre-owned

the vehicle is in optimal condition before the actual handover.

Nominal Duration: 33 hours

Summary of Learning Outcomes:

LO1. Prepare for pre-delivery inspection

LO2. Perform physical and functional inspection

LO3. Complete work processes

Details of Learning Outcomes:

LO1. Prepare for pre-delivery inspection

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Pre-delivery inspection checklist is obtained from immediate supervisor.  2.Vehicle is located based on pre-delivery inspection documents.  3.Required items are prepared following inspection procedures.  4.Transfer of vehicle to inspection area is coordinated following standard operating procedures. | Required items of vehicle Factory-loaded parts Pre-delivery inspection Installation of required items Coordinated transfer of vehicle PPEs  Obtaining job order Locating vehicle Preparing required items Inspecting factory loaded parts Coordinating transfer of vehicle | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Training vehicle or simulators  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture-  Discussion  Demonstration  Video  presentation  Film viewing   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstration  with Oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Perform physical and functional inspection

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Walk-around is conducted according to industry practices.  2.Factory-loaded parts are inspected following manufacturer’s standard procedure.  3.Vehicle is restored following standard operating procedures.  4.Vehicle is checked following standard operating procedures.   1. Minor corrective measures are applied following manufacturer’s manual. 2. Inspection checklist is accomplished based on manufacturer’s standards. 3. PPEs are worn based on OSHS. | Coordination for transfer of vehicle to inspection area Restoration of vehicle Checking of vehicle - Physical - Functional Procedure in accomplishing inspection checklist OSHS PPEs Walk-around procedures Inspection of factory loaded parts Minor corrective measures  Coordinating transfer vehicle to inspection area Restoring vehicle Checking vehicle Accomplishing inspection checklist Wearing PPEs Conducting walkaround Inspecting factory loaded parts Applying minor corrective measures | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Training vehicle or simulators  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture-  Discussion  Demonstration  Video  presentation  Film viewing   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstration  with Oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Complete work processes

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Initial quality inspection is performed based on workplace procedure.  2.Minor defects are corrected following manufacturer’s manual.  3.Wastes are disposed according to environmental standards.  4.Vehicle is endorsed to immediate superior following industry procedures.  5.Defects are reported following industry procedures.  6.Pre-delivery checklist is accomplished and submitted according to industry procedures | Hydraulics Measuring methods Arithmetic, ratio and proportion Proper disposal of waste and spills Accomplishment of pre-delivery checklist Preparation of report Reading of tire pressure gauge Adjustment of tire pressure Application of corrective measures for minor defects  Reading fluid levels Endorsing vehicle Disposing wastes Accomplishing pre-delivery checklist Preparing report | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Training vehicle or simulators  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture-  Discussion  Demonstration  Video  presentation  Film viewing   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstration  with Oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Core Competencies: 279 hours**

Unit of Competency: **Perform Periodic Maintenance of Automotive Engine**

Modules Title: Performing Periodic Maintenance of Automotive Engine

Module Descriptor: This competency module covers the ability to carry out periodic maintenance of gasoline and diesel engines in order to maintain optimum engine performance and prevent serious engine trouble.

Nominal Duration: 136 hours

Summary of Learning Outcomes:

LO1. Prepare for inspection and service engine

LO2. Inspect engine

LO3. Service engine

LO4. Complete work processes

Details of Learning Outcomes:

LO1. Prepare for inspection and service engine

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Job requirements are determined from workplace instructions.  2.Servicing information is sourced and interpreted.  3.Hazards associated with the work are identified and risks are managed.  4.Tools, equipment and materials are selected and checked for serviceability | OSHS Wearing of PPEs Job requirements Servicing information Safety practices Sourcing out and interpretation of servicing information Different hazards associated with the work Risk management Selection and inspection of tools, equipment and materials Attitude: Patience Attention to details Time conscious Honest  Clarifying instructions Locating appropriate sources of information efficiently Reading and interpreting job requirements Sourcing and interpreting servicing information Practicing safety Wearing PPEs Identifying different hazards associated with the work Managing risk Selecting and inspecting tools, equipment and materials | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity | Direct observation  Written examination  Demonstration with oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Inspect engine

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Inspection is carried out according to manufacturer specifications, workplace procedures and safety requirements.  2. Inspection results are compared with manufacturer specifications.  3. Inspection findings are reported according to workplace procedures, including recommendations for necessary repairs or adjustments.  4. PPEs are worn following OSHS | Knowledge on engine automotive components Different measuring tools - Spark plug gauge - Multi-tester Characteristics of drive belt Measurement of fluid level Characteristics of fluids and oils  Inspection procedures Use of measuring tools Automotive engine fundamentals OSHS Wearing of PPEs Attitude: Patience Attention to details Time conscious Honest  Interpreting information from manufacturer’s repair manual when seeking engine service procedures and specifications Calculating liquid volumes and service schedule intervals, using mathematical operations, including addition and subtraction Reporting inspection findings and make repair recommendations Carrying out inspection Comparing inspection results Wearing PPEs | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Written examination  Demonstration with oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Service engine

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Service and adjustments are carried out according to manufacturer specifications, workplace procedures, and safety and environmental requirements, and without causing damage to components or systems.  2.Irregularities are recorded using an inspection sheet according to workplace procedures.  3.Post-service testing is carried out according to workplace procedures.  4.PPEs are worn  5.Safety practices are applied. | Engine oil filter Air cleaner element Fuel filter Basic Carburetor System Adjustment of valve tappet clearance Simple arithmetic Use of Special Service Tools OSHS Wearing of PPEs Inspection and replacement of engine oil and filter Post-service testing Attitude: Patience Attention to details Time conscious Honest  Interpreting information from manufacturer’s repair manual Calculating liquid volumes and service schedule intervals, using mathematical operations, including addition and subtraction Recording irregularities Carrying out service and adjustments Carrying out post service testing Wearing of PPEs Applying safety practices | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Written examination  Demonstration with oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO4. Complete work processes

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Initial quality inspection is performed based on workplace procedure.  2. Vehicle is turned over to the immediate supervisor for final inspection to ensure work is done according to workplace standards expectations.  3. Work area is restored following standard operating procedure.  4. Waste management is practiced according to 5S of good housekeeping.  5. Tools and equipment are checked and stored according to workplace procedures.  6. Workplace documentation is prepared according to workplace procedures. | OSHS Wearing of PPEs Final inspection procedure Checking and storing of tools and equipment Restoration of work area Service standard operating procedure Waste management 5S 3Rs Fix it right the first time all the time Workplace documentation Attitude: Patience Attention to details Time conscious Honest Respect people  Tagging faulty tools and equipment legibly and accurately Completing tool and equipment service and maintenance schedules Recording of service made Restoring work area Inspection skills Practicing waste management Checking and storing tools and equipment Preparing workplace documentation | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Written examination  Demonstration with oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Core Competencies: 279 hours**

Unit of Competency: **Perform Periodic Maintenance of Drive Train**

Modules Title: Performing Periodic Maintenance of Drive Train

Module Descriptor: This competency module covers the ability to carry out periodic

maintenance of vehicle’s drive train such as Manual, Automatic &

Continuously Variable Transmission (CVT) in order to keep it in top

condition and prevent serious trouble.

Nominal Duration: 28 hours

Summary of Learning Outcomes:

LO1. Perform pre-service preparations

LO2. Conduct periodic maintenance of drive trains

LO3. Perform post-service activities

Details of Learning Outcomes:

LO1. Perform pre-service preparations

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Job requirements are determined based on drive train repair order.  2.Servicing information is sourced from the service manual.  3.Vehicle mileage is used as reference for changing fluid following manufacturer’s specification.  4.Fluids conditions are inspected according to the manufacturer's service workshop manual.  5.Fluids are acquired according to vehicle specification.  6.Tools are prepared based on drive train repair order.  Hazards and risks associated in the workplace are managed following OSHS | Use of PPEs OSHS Vehicle user’s manual Drive train repair order Service standard operating procedure Servicing information Types of transmission fluids Condition of transmission fluids Inspection procedure Preparation of tools Management of hazards and risks Different tools for periodic maintenance of drive train Job requirements Odometer reading  Identifying job requirement Reading service Manual Sourcing servicing information Inspecting transmission fluids condition Acquiring transmission fluids Preparing tools Managing hazards and risks associated in the workplace Applying OSHS Reading odometer | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Written examination  Demonstration with oral questioning  Submission  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Conduct periodic maintenance of drive trains

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Fluids are replaced according to manufacturer’s service manual.  2.Drain plug is cleaned following manufacturer’s service manual.  3.Propeller shafts are lubricated according to manufacturer’s service workshop manual.  4.Cracks and leaks of drive train components are inspected following manufacturer’s service workshop manual.  5.Findings are reported to immediate superior following company’s standard procedures.  6.Safety practices are applied following OSHS.  7.PPEs are worn. | OSHS Wearing of PPEs Procedure in draining and replacing transmission fluids Procedure in cleaning drain plug Lubrication of propeller shafts Drive train components Procedure in inspecting cracks and leaks Procedure in reporting findings  Draining transmission fluids Replacing transmission fluids Cleaning drain plug Replacing drain  plug washers Lubricating propeller shafts Inspecting cracks and leaks of drive train components Reporting findings Applying safety practices Wearing PPEs Communication skills | The following resources MUST be provided:  Workplace: Real or simulated work area  Appropriate Tools & equipment  Materials relevant to the activity  Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Written examination  Demonstration with oral questioning  **Virtual Assessment ( For flexible learning)** |

LO3. Perform post-service activities

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1. Fluid level is confirmed following company’s standard procedures.  2. Initial quality inspection is performed based on workplace procedure.  3. Vehicle is turned over to immediate supervisor for final inspection to ensure work is done according to workplace standards expectations.  4. Wastes are disposed according to good housekeeping practices.  5. Job done is written down on the Repair Order.  6. Workplace is restored according company’s standard procedure.  7. Safety practices are applied following OSHS. | Cleaning of transmission dipstick 5S of Good housekeeping Fluid level Waste disposal Spill control Procedure of final inspection Accomplishment of Repair Order Restoration of workplace OSHS  Confirming fluid level Disposing wastes Performing final inspection Accomplishing repair order Restoring workplace Applying safety practices | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Direct observation  Written examination  Demonstration with oral questioning  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Core Competencies: 279 hours**

Unit of Competency : **Perform Periodic Maintenance of Brake System**

Modules Title: Performing Periodic Maintenance of Brake System

Module Descriptor: This competency module covers the ability to carry out periodic

maintenance of vehicle’s brake system in order to keep it in top

condition and prevent serious trouble.

Nominal Duration: 28 hours

Summary of Learning Outcomes:

LO1. Prepare for periodic maintenance of brake system

LO2. Carry-out periodic maintenance procedures

LO3. Complete periodic maintenance procedure

Details of Learning Outcomes:

LO1. Prepare for periodic maintenance of brake system

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Job requirements are determined based on brake system repair order.  2.Servicing information is sourced from service manual.  3.Tools are prepared based on brake system repair order.  4.Hazards and risks associated in the workplace are managed following OSHS. | Manufacturer’s specification  Sourcing out of service information  for periodic maintenance of brake system  Preparation of tools for brake system repair  Service information  Tools for brake system maintenance  Brake system repair order  Management of hazards and risks OSHS  Determining job requirements  Sourcing servicing information  Preparing tools  Managing hazards and risks associated in the workplace  Communication skills  Applying safety practices | The following resources MUST be provided:  >Workplace: real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture-  Discussion  Demonstration  Video  presentation  Film viewing   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstrate  with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Carry-out periodic maintenance procedures

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Brake system components and condition are inspected according to manufacturer’s service workshop manual.  2.Findings and recommendations are reported to immediate superior following company’s standard procedures.  3.Maintenance measures are applied according to instruction of immediate supervisor, superior, and manufacturer’s manual.  4.Safety practices are applied following OSHS. | Brake system components  Inspection of brake system components Measuring thickness of brake lining  Introduction to anti lock brake system  Inspection of brake system components  Procedure in cleaning and lubricating brake caliper guide pins  Bleeding of brake system  Adjustment of parking brake lever/ pedal travel and cable tension  brake lever/pedal travel and cable  tension according to service workshop manual  Calibration of electric parking brake OSHS Pedal height  Measurement of brake system components  Linear measurement  Report preparation of findings and recommendations  Inspecting brake system components and condition Measuring brake pads and shoes thickness Measuring brake drum diameter Measuring rotor disc run-out Measuring pedal height Lubricating brake caliper guide pins Bleeding brake system Adjusting parking brake lever and cable tension  Calibrating electric parking brake Reporting findings and recommendations Applying OSHS Communication skills | The following resources MUST be provided:  >Workplace: real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture-  Discussion  Demonstration  Video  presentation  Film viewing   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Online presentation * Online lecture * Online Activity * Lecture/ Video Conference * E-learning | Written exam  Demonstrate  with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Complete periodic maintenance procedure

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Initial quality inspection is performed based on workplace procedure.  2.Vehicle is turned over to immediate supervisor for final inspection to ensure work is done according to workplace standards expectations.  3.Wastes are disposed according to good housekeeping practices.  4.Job done is written down on the Repair Order.  5.Tools and equipment are checked, cleaned and stored following workplace procedure.  6.Workplace is restored according company’s standard procedure.  7.Safety practices are applied following OSHS | Waste management  Report preparation  Restoration of  workplace OSHS 5S 3Rs  Disposing wastes  Accomplishing repair order  Restoring workplace  Checking, cleaning, and storing tools and equipment  Applying safety practices | The following resources MUST be provided:  >Workplace: real or simulated work area  >Appropriate Tools & equipment  >Materials  relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture-  Discussion  Demonstration  Video  presentation  Film viewing   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstrate  with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Core Competencies: 279 hours**

Unit of Competency : **Perform Periodic Maintenance of Suspension System**

Modules Title: Performing Periodic Maintenance of Suspension System

Module Descriptor: This competency module covers the ability to carry out periodic

maintenance of vehicle’s suspension system in order to keep it in top

condition and prevent serious trouble.

Nominal Duration: 30 hours

Summary of Learning Outcomes:

LO1. Perform pre-periodic maintenance of suspension system

LO2. Apply periodic maintenance procedures

LO3. Perform work to completion

Details of Learning Outcomes:

LO1. Perform pre-periodic maintenance of suspension system

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Job requirements are determined based on suspension system repair order.  2.Servicing information is sourced from service manual.  3.Tools, equipment and materials are prepared based on suspension system repair order.  4.Hazards and risks associated in the workplace are managed following OSHS.  5.Protective covers are installed based on standard operating procedure. | Suspension system fundamentals Use of service information resources Use of job/ repair order Use of inspection checksheets Tools, equipment and materials for maintenance of suspension system Installation of protective covers Hazards and risk Work safety OSHS Attitudes: Full attention to details Time conscious Complies to standards  Interpreting specifications based on manufacturer’s service workshop manual. Preparing specified tools, equipment and materials for suspension system maintenance. Managing hazards and risk in the workplace. Installing protective covers | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  Presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * E-learning * Online lecture * Online Activity | Written exam  Demonstrate  with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Apply periodic maintenance procedures

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Inspection procedures are applied according to service manual.  2.Suspension system components are inspected according to manufacturer’s service workshop manual.  3.Suspension bolts/fasteners are tightened to specified torque.  4.Defects and damage are reported to immediate superior.  5.Findings and recommendations are reported to immediate superior following company’s standard procedures.  6.Safety practices are applied following OSHS. | Suspension system fundamentals Suspension system fundamentals - Wheel bearing fundamentals - Threaded fasteners fundamentals - Torque wrench fundamentals - Tire fundamentals  Suspension system fundamentals Suspension system fundamentals - Wheel bearing fundamentals - Threaded fasteners fundamentals - Torque wrench fundamentals - Tire fundamentals  Practicing Safety Inspecting suspension system components Writing job done on repair order Applying corrective measures Reporting findings and recommendations Communication skills  Mathematical skills | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstrate  with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO3. Perform work to completion

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Wastes are disposed according to good housekeeping practices.  2.Initial quality inspection is performed based on workplace procedure.  3.Vehicle is endorsed and hand-over to immediate superior for road test and final inspection.  4.Job done is written down on the repair order.  5.Workplace is restored according company’s standard procedure.  6.Safety practices are applied following OSHS. | Waste management fundamentals Initial quality inspection Vehicle endorsement and hand-over Accomplishment of job/repair order 5S 3Rs OSHS Attitudes: Good housekeeping habit Full attention to details Time conscious Complies to standards  Practicing good housekeeping Following standard Reporting results of inspection Endorsing and hand-over vehicle Performing initial quality inspection Accomplishing job/repair order Applying OSHS | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstrate  with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

**Core Competencies: 279 hours**

Unit of Competency : **Perform Periodic Maintenance of Steering System**

Modules Title: Performing Periodic Maintenance of Steering System

Module Descriptor: This competency module covers the ability to carry out periodic

maintenance for both manual and power steering system in order to

keep it in top condition and prevent serious trouble.

Nominal Duration: 24 hours

Summary of Learning Outcomes:

LO1. Perform pre-periodic maintenance of steering system

LO2. Apply periodic maintenance procedures

LO3. Perform work to completion

Details of Learning Outcomes:

LO1. Perform pre-periodic maintenance of steering system

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Job requirements are determined based on steering system repair order.  2.Servicing information is sourced from service manual.  3.Tools, equipment and materials are prepared based on steering system repair order.  4.Hazards and risks associated in the workplace are managed following OSHS.  5.Protective covers are installed based on standard operating procedure. | Steering system fundamentals Use of service information resources Use of job/repair order Tools, equipment and materials for maintenance of steering system Installation of protective covers OSHS Attitudes: Full attention to details Time conscious Complies to standards  Interpreting specifications Preparing specified tools, equipment and materials for steering system maintenance Managing hazards and risk in the workplace Installing protective covers Sourcing out servicing information Determining job requirements for steering system Applying safety practices | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstrate  with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |

LO2. Apply periodic maintenance procedures

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Steering system components are inspected according to manufacturer’s service workshop manual.  2.Findings and recommendations are reported to immediate superior following company’s standard procedures.  3.Power steering fluid is replaced based on manufacturer’s service workshop manual.  4.Steering wheel free play inspection is conducted based on service manual.  5.Defects and damages are reported to immediate supervisor.  6.Safety practices are applied following OSHS. | Steering system fundamentals - Threaded fasteners fundamentals. - Torque wrench fundamentals. - Hydraulic steering fundamentals - Electric steering fundamentals - MIL illumination Use of service information resources (ex. SM, Bulletins, etc.)  Use of Job/repair order Use of inspection checksheets Application of maintenance measures Mensuration Metric system Reporting of findings and recommendations OSHS PPEs Attitudes: Full attention to details Time conscious Complies to standards  Inspecting steering system components Writing job done on repair order Applying maintenance measures Reporting findings and recommendations Communication skills Mathematical skills Following manual Practicing Safety | The following resources MUST be provided:  >Workplace: Real or simulated work area  >Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstrate  with oral questioning  Direct observation  **Virtual Assessment ( For flexible learning)** |

LO3. Perform work to completion

| **Assessment**  **Criteria** | **Contents** | **Conditions** | **Methodologies** | **Assessment Methods** |
| --- | --- | --- | --- | --- |
| 1.Wastes are disposed according to good housekeeping practices.  2.Initial quality inspection is performed based on workplace procedure.  3.Job done is written down on the Repair Order.  4.Workplace is restored according to company’s standard procedure  5.Safety practices are applied following OSHS.  6.Tools and equipment are checked, cleaned, and stored following 5S. | Waste management Initial quality inspection Information from job/ repair order 5S 3Rs OSHS Accomplishing repair order Restoration workplace Handling of tools and equipment  Following standard Reporting results of inspection Performing initial quality inspection Applying OSHS Managing waste Performing final inspection Accomplishing repair order for job done Restoring workplace Practicing safety and 5S Handling tools and equipment | The following resources MUST be provided:  >Workplace: Real or simulated work area  > Appropriate Tools & equipment  >Materials relevant to the activity  >Repair manuals and related reference materials  Blended Learning Delivery Mode requirements:  > Internet connections at least 3 mbps  > Learning Management System: Canvas LMS  > Video Conference App:  Zoom Meeting/ Google Meet | Lecture  Demonstration  Video  presentation  Workshop visit   * Independent Reading * Discussion Forum * Demonstration/ Video Presentation * Practical exercises/ Assignment * Lecture/ Video Conference * Online presentation * Online lecture * Online Activity * E-learning | Written exam  Demonstrate  with oral questioning  Direct observation  **Virtual Assessment using Canvas( For flexible**  **learning)** |