

# Curriculum for Dairy Technician (Certificate Level - 6 months)



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## **Overall objective of the course**

The broader objectives of this course are

- To produce trained work force for dairy sector.
- To maximize the production of international quality milk & milk products for export as well as for local consumption.
- To minimize the milk losses through improvement in industry wide practices.
- To reduce pollution through proper waste management.
- To enhance the quality of milk by controlling adulteration at reception points.

### **Competencies gained after completion of the course**

After completion of this course, the trainee must be able to perform

- Receiving and handling the milk.
- Quality control tests/lab tests/adulteration tests.
- CIP of tanks and utensils.
- Milk / milk products processing.
- Packaging & preservation.
- By-products processing.
- Waste products management.

## **Job opportunities available immediately and in the future**

- Reception labs / inlets of dairy industry.
- In process testing of dairy products
- Operation department in dairy industry
- Commercial dairy farms
- In collection, distribution and supply chain of dairy sector
- Team member in quality systems (ISO, HACCP)

## **Curriculum Salient Points**

<b>Name of Course:</b>	Dairy Technician
<b>Entry level:</b>	Middle preferably Matric / Illiterate with minimum 03 years dairy experience
<b>Duration of course:</b>	6-months
<b>Total Training Hours:</b>	790 hours
<b>Training Hours Per week:</b>	40 hours
	7 hours per day
	5 hours Friday
<b>Medium of Instruction:</b>	English/Urdu

## Overview about the program – Curriculum for Dairy Technician

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours
<p style="text-align: center;"><b>Module 1: Fundamental of Dairy Technology/Industry</b></p> <p>Aim: Prepare students with a fair concept of dairy technology, milk constituents. Trainees will also achieve the skills of recognize dairy breeds and moral codes .</p>	<p>LU1 –Dairy Technology</p> <p>LU2 –Milk Composition &amp; Nutrition</p> <p>LU3-Dairy Farming</p> <p>LU4-Work Ethics</p>	<p>6-hours</p> <p>6-hours</p> <p>6-hours</p> <p>6-hours</p>	<p>0-hours</p> <p>0-hours</p> <p>60-hours</p> <p>15-hours</p>
<p style="text-align: center;"><b>Module 2: Milk Handling, Collection and Transportation</b></p> <p>Aim: This module will enable the students to have skills of milk procurement, handling, storage and logistics.</p>	<p>LU1- Milk Procurement &amp; Collection system</p> <p>LU2- Milk Handling</p> <p>LU3-Milk Storage</p> <p>LU4-Transportation</p>	<p>12-hours</p> <p>12-hours</p> <p>6-hours</p> <p>6-hours</p>	<p>30-hours</p> <p>30-hours</p> <p>15-hours</p> <p>0-hours</p>
<p style="text-align: center;"><b>Module 3: Milk Processing &amp; Preservation</b></p> <p>Aim: This module will impart the knowledge of milk preservation and prepare the trainee to perform common dairy processes.</p>	<p>LU1- Standardization, Separation ,Homogenization</p> <p>LU2- Pasteurization</p> <p>LU3-UHT Plant</p> <p>LU4-Dried Milk Plant</p>	<p>6-hours</p> <p>6-hours</p> <p>6-hours</p> <p>6-hours</p>	<p>42-hours</p> <p>42-hours</p> <p>42-hours</p> <p>30-hours</p>

<p align="center"><b>Module 4: Milk Products</b></p> <p>Aim: Trainees will attain the comprehensive knowledge and skills of manufacturing different dairy products</p>	LU1-Liquid Milk Processing	6-hours	42-hours
	LU2-Yougurt and Cheese Processing	6-hours	42-hours
	LU3-Butter and butter oil Processing	6-hours	30-hours
	LU4-Cream and Ice cream Processing	6-hours	30-hours
<p align="center"><b>Module 5: Quality Assurance</b></p> <p>Aim: This module will impart the complete knowledge of quality systems and enable trainees to perform quality control testing.</p>	LU1- Milk Reception	6-hours	48-hours
	LU2- Bio- Security	6-hours	0-hours
	LU3-Microbiology of Milk	6-hours	48-hours
	LU4- Quality Systems	15-hours	0-hours
<p align="center"><b>Module 6:Packaging,By-Products /Waste Management</b></p> <p>Aim: This module will impart the knowledge &amp; skills about packaging of dairy products, By products processing &amp;waste Management.</p>	LU1- Packaging of Milk & Milk Products	6-hours	30-hours
	LU2- Whey	6-hours	30-hours
	LU3-Waste Management	10-hours	15-hours
	LU4-Envoirnment Protection	6-hours	0- hours

# Dairy Technician Curriculum Contents (Teaching and Learning Guide)

## Module 1 Title: Fundamental of Dairy Technology/Industry

**Objective of the Module:** Prepare students with a fair concept of dairy technology, milk constituents. Trainees will also achieve the skills of recognize dairy breeds and moral codes.

**Duration:** 99 hours    **Theory:** 24 hours    **Practice:** 75 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
<b>LU1-DAIRY TECHNOLOGY</b>	Familiarize the concept of dairy science and technology	Students will be able to: i) Know the definition of milk ii) Know about dairy industry and its scope. iii) Understand the significance of dairy science.	Th. 6-hrs Pr. 0-hrs	Instructional material	Class Room
<b>LU2- MILK COMPOSITION &amp; NUTRITION</b>	Develop the concept of milk constituents and their functions.	Students will be able to: i) Develop the concept of milk constituents and interactions. ii) understanding of physico chemical properties of milk iii) Understand the role of milk in human nutrition.	Th.6-hrs Pr. 0-hrs	Instructional material	Class Room
<b>LU3- DAIRY FARMING</b>	Perform operations related to dairy farming	Students will be able to: i) know the factors effect the quality of milk ii) Identify the common dairy breeds iii) Understanding of hygienic practices involved in dairy farming. iv)perform the hygienic milking operation.	Th. 6-hrs Pr. 60-hrs	Visit to dairy farm	Dairy Farm
<b>L U4-WORK ETHICS</b>	To enhance the moral values.	Students will be able to: i) Enhance the moral values as a worker. ii) Perform best under all circumstances according to rules.	Th. 6-hrs Pr. 15-hrs	Instructional material	Class room

**Module 2 Title:** Handling, Collection and Transportation

**Objective of the Module:** This module will enable the students to have skills of milk procurement, handling, storage and logistics.

**Duration:** 111 hours      **Theory:** 36 hours      **Practice:** 75 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
<b>LU1- MILK PROCUREMENT AND COLLECTION SYSTEM</b>	Purchasing and testing of milk.	Students will be able to: i) Know the purchase process ii) Understanding of raw milk market. iii) Perform the collection and preservation of raw milk.	Th. 12-hrs Pr. 30-hrs	H2O2,NaOH,H2SO4,IsoAmyl Alcohol,Ethanol,methyleneblue ,	Laboratory
<b>LU2- MILK HANDLING</b>	Perform precautionary measures to reduce the losses.	Students will be able to: i) Know the precautionary measures for milk handling ii) Perform hygienic handling of milk. iii) CIP of utensils and equipment. iv) line tracing skill	Th. 12-hrs Pr. 30-hrs	Milk, instructional material	Laboratory
<b>LU3-MILK STORAGE</b>	Cold chain storage operations	Student will be able to: i)know the storage conditions ii)control the milk chillers and cooling tanks iii) handle the transfer of milk within the plant iv) monitor the quality of milk during storage.	Th.6-hrs Pr.15-hrs	Industrial visit	Industry
<b>LU4- TRANSPORTATION</b>	Maintain the quality transfer of milk	Student will be able to: i) Perform inspection of milk tanker. ii) Perform CIP .of milk tanker and allied accessories. iii) Sealing of tankers before dispatch. iv) dispatch documentation.	Th.6-hrs Pr.0-hrs	Industrial visit	industry



**The tools, equipment and machinery for this module may include:-**

LU1-Gerber machine, lactometer, Ph meter, refractometer, Petri dishes, test tubes, measuring cylinders, beakers, sampler

LU2- cooling tank, water bath, plunger

**Module 3 Title:** Processing & Preservation

**Objective of the Module:** This module will impart the knowledge of milk preservation and prepare the trainee to perform common dairy processes.

**Duration:** 180 hours      **Theory:** 24 hours      **Practice:** 156 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
<b>LU1- STANDARDIZATION, SEPERATION, HOMOGENIZATION.</b>	Command to standardized the milk for further processing	Students will be able to: i) Work on milk separator. ii) work on milk homogenizer iii) standardization of milk	Th. 6-hrs Pr. 42-hrs	Milk	laboratory
<b>LU2- PASTEURIZATION</b>	Working of pasteurizer .	Students will be able to: i) Know the Objective of pasteurization& sterilization ii)know the working of pasteurizer iii) operate the heat exchanger.	Th.6-hrs Pr. 42-hrs	Milk	laboratory
<b>LU3-UHT PLANT</b>	Operation of UHT machine	Student will be able to: i) Know the concept of heat transfer. ii) know the working of UHT plant iii) Understand the types of sterilizers. iv) Understand the difference between pasteurization and sterilization.	Th.6-hrs Pr.42-hrs	Industrial visit	Industry
<b>LU4-DRIED MILK PLANT</b>	Working of milk drier.	Student will be able to: i) understand the concept of drying ii) Understand the working of different types of driers. iii) understand the working of evaporator	Th.6-hrs Pr.30-hrs	Milk/condense milk	Laboratory

**The tools, equipment and machinery for this module may include:-**

LU1- cream separator, milk homogenizer.

LU2- heat exchanger

LU3- Spray drier, Drum drier

**Module 4 Title:** Milk Products**Objective of the Module:** Trainees will attain the comprehensive knowledge and skills of manufacturing different dairy products**Duration:** 168 hours      **Theory:** 24 hours      **Practice:** 144 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
<b>LU1- LIQUID MILK PROCESSING</b>	Manufacturing of processed market milk	Students will be able to: i) Know the unit operations in liquid milk processing ii) Understand the use of tools and equipment. iii) Perform in process testing.	Th. 6-hrs Pr. 42-hrs	Industrial visit	Industry
<b>LU2- YOGURT &amp; CHEESE</b>	Manufacturing of yogurt & cheese	Students will be able to: i) Know the concept of fermentation. ii) Perform unit operation involved in yogurt & cheese. iii) perform In process testing iv) Understand the concept of ripening in cheese.	Th. 6-hrs Pr. 42-hrs	Milk,culture,rennet, CaCl <sub>2</sub> ,CMC,Gelitin,sucrose	Laboratory
<b>LU3- BUTTER &amp; BUTTER OIL</b>	Manufacturing of butter & butter oil.	Students will be able to: i) Know the manufacturing of butter and butter oil. ii) Know the difference between oil & fat. iii) In process testing	Th.6-hrs Pr.30-hrs	Cream, culture,salt,color,antioxidant	Laboratory
<b>LU4-CREAM &amp; ICE CREAM</b>	Manufacturing of cream & ice cream	Student will be able to: i) Manufacturing of cream and ice cream. ii) understand the storage conditions iii) In process testing.	Th.6-hrs Pr.30-hrs	Milk,color,flavor,nuts,thickners, Preservatives, sweetners.	Laboratory

**The tools, equipment and machinery for this unit may include:-**

LU2- Autoclave, refrigerator, incubator, cheese making vat with accessories

LU3- electric churning machine, bowls, cooker

LU4- Separator, whipping machine, mixer, ice cream making machine.

**Module 5 Title:** Quality Assurance**Objective of the Module:** This module will impart the complete knowledge of quality systems and enable trainees to perform quality control testing.**Duration:** 129 hours      **Theory:** 33 hours      **Practice:** 96 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
<b>LU1- MILK RECEPTION</b>	Perform the organoleptic, analytical and adulteration test.	Students will be able to: i) Perform the organoleptic testing. ii) analysis of milk. iii) perform adulteration testing	Th. 6-hrs Pr. 48-hrs	H <sub>2</sub> O <sub>2</sub> ,NaOH,H <sub>2</sub> SO <sub>4</sub> ,IsoAmyl Alcohol,Ethanol,methyleneblue	laboratory
<b>LU2- BIO-SECURITY</b>	Able to manage the personal and product security.	Students will be able to: i) Understand the concept of physical security ii) Understand the concept of personal security iii) Understand the material control & accountability iv) Understand the transport security.	Th. 6-hrs Pr. 0-hrs	Instructional material	Class room
<b>LU3- MICROBIOLOGY OF MILK</b>	Perform microbiological tests	Student will be able to: i) Identify the micro organisms involved in milk and milk products. ii) understand the concept of food poisoning iii) Testing of total plate count and coli form in milk & milk products.	Th. 6 hrs Pr.48 hrs	Agar,petri plates, media,	laboratory
<b>LU4-QUALITY SYSTEMS</b>	Awareness of quality systems	Students will be able to i) know the concept of quality assurance ii) understanding of ISO,HACCP & GMPs.	Th.15 hrs Pr.0 hrs	Instructional material	Class room

**The tools, equipment and machinery for this unit may include:-**

LU1- Ph meter, lactometer, refractometer, gerber machine, water bath, test tubes, Petri plates,beakers,cylinders,SS cans, butyro meter, test tube racks, sodium meter, automatic pipettors,dispensors,

LU3- microscopes, incubator, autoclave, Petri plates, wireloops ,laminar flow hood .

**Module 6 Title:** Packaging, By Products and waste management

**Objective of the Module:** This module will impart the knowledge & skills about packaging of dairy products, By products processing & waste Management.

**Duration:** 103 hours      **Theory:** 28 hours      **Practice:** 75 hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
<b>LU1- PACKAGING OF MILK &amp; MILK PRODUCTS</b>	Identify the nature and Function of different packaging material for dairy products.	Students will be able to: i) Understand the characteristics of packaging material. ii) know the types of packaging material iii) perform the packaging of milk and milk products.	Th. 6-hrs Pr. 30-hrs	Different dairy packs and packaging.	Laboratory
<b>LU2-WHEY</b>	Efficient uses of whey.	Students will be able to i) Understand the importance of by products. ii) Perform the hygienic separation of whey iii) Know the uses of whey.	Th.6-hrs Pr.30-hrs	Visit to dairy industry	Industry
<b>LU3-WASTE MANAGEMENT</b>	Learn the Disposal method of waste material	Students will be able to i) understand the importance of waste management ii) understand the types of whey products. iii) understand the disposal procedures	Th .10-hrs Pr. 15-hrs	Visit to dairy industry	Industry
<b>LU4- ENVOIRNMENT PROTECTION</b>	Understand the importance of environment safety.	Student will be able to i) know the concept of environmental pollution ii) Understand the types of pollution. iii) understand the control of environmental pollution.	Th.6-hrs Pr. 0-hrs	Instructional material	Class room

**The tools, equipment and machinery for this unit may include:-**

LU1- screw guage, electronic balance

# Assessment

## Module 1: Fundamental of Dairy Technology/Industry

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
<b>LU1- DAIRY TECHNOLOGY</b>	6 hrs	0 hrs	i) Know the definition of milk ii) Know about dairy industry and its scope. iii) Understand the significance of dairy science.	i) Oral questioning ii) Short Q/A iii) Short Q/A	
<b>LU2- MILK COMPOSITION &amp; NUTRITION</b>	6 hrs	0 hrs	i) Develop the concept of milk constituents and interactions. ii) understanding of physico chemical properties of milk iii) Understand the role of milk in human nutrition.	i) Oral questioning ii) Demonstration iii) Short Q/A	
<b>LU3- DAIRY FARMING</b>	6 hrs	60hrs	i) know the factors effect the quality of milk ii) Identify the common dairy breeds iii) Understanding of hygienic practices involved in dairy farming. iv)perform the hygienic milking operation.	i) Oral questioning ii) Demonstration iii) Demonstration iv) Short Q/A	
<b>LU4- WORK ETHICS</b>	6 hrs	15 hrs	i) Enhance the moral values as a worker. ii) Perform best under all circumstances according to rules.	i) Oral questioning ii) Short Q/A	

### Critical aspects:-

- History and future prospect of dairy
- Milk composition
- Dairy farm management skills

## Module 2: Handling, Collection and Transportation

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
<b>LU1- MILK PROCUREMENT AND COLLECTION</b>	12 hrs	30 hrs	i) Know the purchase procedures ii) Understanding of raw milk market. iii) Perform the collection and preservation of raw milk.	i) Oral questioning ii) Short Q & A iii) Demonstration	
<b>LU2- MILK HANDLING</b>	12 hrs	30 hrs	i) Know the precautionary measures for milk handling ii) Perform hygienic handling of milk. iii) CIP of utensils and equipment. iv) line tracing skill	i) Oral questioning ii) Demonstration iii) Short Q & A iv) Demonstration	
<b>LU3-MILK STORAGE</b>	6 hrs	15 hrs	i) know the storage conditions ii) control the milk chillers and cooling tanks iii) handle the transfer of milk within the plant iv) monitor the quality of milk during storage.	i) Oral questioning ii) Short Q/A iii) Demonstration iv) Demonstration	
<b>LU4- TRANSPORTATION</b>	6 hrs	0 hrs	i) Perform inspection of milk tanker. ii) Perform CIP .of milk tanker and allied accessories. iii) Sealing of tankers before dispatch. iv) dispatch documentation.	i) Demonstration ii) oral questioning iii) Short Q/A iv) oral questioning	

### The tools, equipment and machinery for this module may include:-

LU1- Gerber machine, lactometer, Ph meter, refracto meter, Petri dishes, test tubes, measuring cylinders, beakers, sampler  
LU2- cooling tank, water bath, plunger

### Critical aspects:-

- basic milk test
- milk handling & storage
- milk logistic procedures

### Module 3: Processing & Preservation

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
<b>LU1- STANDARDIZATION, SEPERATION,HO MOGENIZATION</b>	6 hrs	42 hrs	i) Work on milk separator. ii) work on milk homogenizer iii) standardization of milk	i) Oral questioning ii) Short Q & A iii) Demonstration	
<b>LU2- PASTEURIZATION</b>	6 hrs	42 hrs	i) Know the Objective of pasteurization & sterilization ii) know the working of pasteurizer iii) Operate the heat exchanger.	i) Oral questioning ii) Demonstration iii) Short Q & A	
<b>LU3-UHT</b>	6 hrs	42 hrs	i) Know the concept of heat transfer. ii) know the working of UHT plant iii) Understand the types of sterilizers. iv) Understand the difference between pasteurization and sterilization.	i) Oral questioning ii) Demonstration iii) Short Q & A iv) Short Q/A	
<b>LU4-DRIED MILK PLANT</b>	6 hrs	30 hrs	i) understand the concept of drying ii) Understand the working of different types of driers. iii) understand the working of evaporator	i) Oral questioning ii) Demonstration iii) Short Q & A	

**The tools, equipment and machinery for this module may include:-**

- LU1- cream separator, milk homogenizer.
- LU2- heat exchanger
- LU3- Spray drier, Drum drier

**Critical aspects:-**

- standardization and homogenization practice
- pasteurization technique
- milk drying technique



## Module 4: Milk Products

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
<b>LU1- LIQUID MILK PROCESSING</b>	6 hrs	42 hrs	i) Know the unit operations in liquid milk processing ii) Understand the use of tools and equipment. iii) Perform in process testing.	i) Oral questioning ii) Short Q & A iii) Demonstration	
<b>LU2- YOGHURT,CHEESE PROCESSING</b>	6 hrs	42 hrs	i) Know the concept of fermentation. ii) Perform unit operation involved in yogurt & cheese. iii) perform In process testing iv) Understand the concept of ripening in cheese.	i) Oral questioning ii) Demonstration iii) Short Q/A	
<b>LU3- BUTTER,BUTTER OIL PROCESSING</b>	6hrs	30 hrs	i) Know the manufacturing of butter and butter oil. ii) Know the difference between oil & fat. iii) in process testing	i) Oral questioning ii) Demonstration iii) Short Q/A	
<b>LU4-CREAM,ICE CREAM PROCESSING</b>	6 hrs	30 hrs	i) Manufacturing of cream and ice cream. ii) understand the storage conditions iii) In process testing.	i) Oral questioning ii) Demonstration iii) Short Q/A	

### The tools, equipment and machinery for this module may include:-

LU2- Autoclave, refrigerator, incubator, cheese making vat with accessories

LU3- electric churning machine, bowls, cooker

LU4- Separator, wiping machine, mixer, ice cream making machine.

### Critical aspects:-

- processing of different commodities
- quality maintenance of dairy products

## Module 5: Quality Assurance

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
LU1- MILK RECEPTION	6 hrs	48 hrs	ii) Perform the organoleptic testing. ii) analysis of milk. iii) perform adulteration testing	i) Oral questioning ii) Short Q & A iii) Demonstration	
LU2- BIO SECURITY	6 hrs	0 hrs	ii) Understand the concept of physical security ii) Understand the concept of personal security iii) Understand the material control & accountability iv) Understand the transport security.	ii) Oral questioning ii) Oral questioning iii) Short Q & A iv) Short Q/A	
LU3- MICROBIOLOGY OF MILK	6hrs	48 hrs	i) Identify the micro organisms involved in milk and milk products. ii) understand the concept of food poisoning iii) Testing of total plate count and coli form in milk & milk products.	i) Oral questioning ii) Short Q & A iii) Demonstration	
LU4-QUALITY SYSTEMS	15 hrs	0 hrs	i) know the concept of quality assurance ii) understanding of ISO, HACCP & GMPs.	i) Oral questioning ii) Short Q & A	

### The tools, equipment and machinery for this module may include:-

LU1- Ph meter, lactometer, refractometer, gerber machine, water bath, test tubes, Petri plates, beakers, cylinders, SS cans, butyro meter, test tube racks, sodium meter, automatic pipettors, dispensers,

LU3- microscopes, incubator, autoclave, Petri plates, wire loops ,laminar flow hood .

### .Critical aspects:-

- complete milk testing
- personal hygiene
- implementation of quality systems

**Module 6: Packaging, By Products,& Waste Management**

Learning Units	Theory hours	Workplace hours	Recommended formative assessment	Recommended Methodology	Scheduled Dates
<b>LU1- PACKAGING OF MILK AND MILK PRODUCTS</b>	6 hrs	30 hrs	i) Understand the characteristics of packaging material. ii) know the types of packaging material iii)perform the packaging of milk and milk products.	i) Oral questioning ii) Short Q & A iii) Demonstration	
<b>LU2- WHEY</b>	6 hrs	30 hrs	i) Understand the importance of by products. ii)Perform the hygienic separation of whey iii) Know the uses of whey.	i) Short Q & A ii) Oral questioning iii) Short Q & A	
<b>LU3-WASTE MANAGEMENT</b>	10 hrs	15 hrs	i) understand the importance of waste management ii)understand the types of whey products. iii)understand the disposal procedures	i) Short Q & A ii) Oral questioning iii) Short Q & A	
<b>LU4- ENVOIRNMENT PROTECTION</b>	6 hrs	0 hrs	i) know the concept of environmental pollution ii) Understand the types of pollution. iii) Understand the control of environmental pollution.	i) Short Q & A ii) Oral questioning iii) Short Q & A	

**The tools, equipment and machinery for this module may include:-**

LU1- screw gauge, electronic balance

**Critical aspects:-**

- packaging of dairy products
- whey separation and uses
- waste disposal

## Supportive notes

The candidate will be required to:

- Orally, or by other methods of communications, answer the questions asked by the assessor.
- Identify superiors who can be approached for the collection of competency evidence.
- Present evidence related to the units.

During assessment the candidate will:

- Demonstrate safe work practices at all times.
- Communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment.
- Take the responsibility for the quality of his/her own work.
- Plan task and review task requirements at appropriate time.
- Relate to all stake holders according to accepted conventions.
- Perform all tasks in accordance with standard operating procedures.
- Perform all tasks to specifications.
- Use accepted data collection techniques, practices, and processes in line with work place procedures.

### **Resources required for assessment include:**

All material, tools, equipment and machinery listed within the modules.