

CURRICULUM OF “MEAT SUPERVISOR/ ASSISTANT LINE INSPECTOR” *Level-5*



**National Vocational & Technical
Training Commission**

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INTRODUCTION

The agriculture sector is playing pivotal role to maintain the economy of the Pakistan where large number of individuals are directly or indirectly related to this sector to earn their livelihood. Amongst the agriculture, livestock and meat industry are the vital sectors that are providing quality food especially protein to the masses. Meat Industry is one of the largest employers in Pakistan, and demand for processed meat has shown tremendous increase due to busy life and increased awareness about meat safety and hygiene. Production of skilled human resources in the area of meat processing and preservation will help to create business opportunities as well as jobs at the local community levels alongside ensuring safe meat production for the consumers.

The present Federal Government has rightly recognized the immense potential of meat processing and preservation in Pakistan and is now taking steps to tap this potential to overcome the shortfalls in this sector. Pakistan's meat processing industry is broadly categorized into different sectors like Halal slaughtering and handling of carcass, poultry processing, seafood processing, meat production and frozen meat processing. The goal of this course is to provide students with a fundamental understanding of meat technology and to ensure that students are technically sound in practical and problem-solving approaches for entrepreneurial startups and/or jobs in the meat industry. Notably, students are stimulated to polish their entrepreneurial skills and explore new horizons of the meat processing industry.

Preservation of meat can be done by chilling, freezing, canning, fermentation, dehydration, smoking, by different chemical agents, and various thermal techniques. Production of a range of meat products using these preservation techniques and processes is adopted by the meat industries. In this context, the students will also develop an understanding of shelf life and nutritional consequences of meat preservation techniques.

This course will provide opportunity to the students to learn different methods to process and preserve various types of meat, sampling and handling techniques, GMPs, HACCP, different meat contaminations, meat quality control, quality assurance, meat storage, and meat shipping etc.

The main goal of this course on meat technology is to prepare a student as skilled personnel for efficient meat processing to increase the productivity with effective quality control and to preserve the environment while fulfilling consumer expectations.

To improve the quality and relevancy of this training program, National Vocational & Technical Training Commission via Qualification Development Committee (QDC) developed National Competency Standards Level 5 for Meat Technology. The learning outcomes through this curriculum provide enough grounds to enrich the meat industry with demand-driven trained personnel in line with the latest industrial needs. Furthermore, this curriculum can be implemented in different sectorial pathways with flexibility in both public and private sector institutes.

Training Course is based on competency standards which are defined by the industry and the traditional role of a trainer changes and shifts towards the facilitation of training. A trainer encourages and assists trainees to learn for themselves. Trainees are likely to work in groups (pairs) and all doing something different. Some are doing practical tasks in the farm, some writing, some not even in the classroom or farm but in another

part of the building using specialist equipment, working on computers doing research on the Internet or the library. As trainees learn at different pace they might well be at different stages in their learning, thus learning must be tailored to suit individual needs. The following facilitation methods (teaching strategies) are generally employed.

Purpose of the training programme

The purpose of this qualification is to give the trainee a thorough understanding of meat processing and preservation in meat industry with effective quality control and safety of the meat products. Meat processing and preservation are diversified methods and continuously subject to changes over time. It is therefore important to stress the need for a multidisciplinary approach to meet the challenges within this sector. Upon successful completion of this course the trainees should be able to:

- Explain the core elements of meat processing and preservation techniques
- Understand the chemistry underlying the properties and reactions of various meat components
- Understand basic principles behind analytical techniques associated with meat
- Be able to use the laboratory techniques common to basic and applied meat chemistry
- Understand the basic principles and practices of cleaning and sanitation in meat processing operations
- Apply the principles of meat science to control and assure the quality and safety of meat products
- Be aware of current topics of importance to the meat industry
- Work effectively with others; provide supervision in a variety of situations and can deal with individual and/or group conflict

Overall objectives of training course

The primary objective of this training program is to provide the trainees with up-to-date knowledge and skills required by the meat processing sector in a comprehensive way to cope the challenges of the food industries. After qualifying the course at different levels (Level 2 – 5), the students will be able to get job in the meat handling and processing industries and be able to function as entrepreneurs. The contents of the course are specifically designed in such a way that it covers all the major sectors in meat industry hence, the students are sufficiently exposed to operational requirements of these sectors and are ready to perform their duties confidently.

The overall objectives of developing this qualification are to:

- Improve the overall quality of training delivery and setting national benchmarks for training of Meat Technology (Level 5) in the country
- Provide flexible and progressive learning opportunity for trainees to receive relevant and up-to-date skills in meat industry
- Provide basis for competency-based assessment which is recognized and accepted by employers in modern days
- Establish a standardized and sustainable training in consultation with the meat industry

Competencies to be gained after completion of course

After completing this course, the students will be capable of performing different food processing operations decently in the food industries. Furthermore, this skilled training program enables the students to develop multispectral competencies such as creative thinking, problem solving, research skills, personal and group management, presentation and communication skills, technical and professional negotiations related to food processing operations. The below listed competencies imprinted by this training program are quite prominent to the students' profile to enhance their employability in their career in food sector:

- Knowledge and concepts of processing operations in meat industry
- Creative thinking and troubleshooting skills in food manufacturing
- Potential to translate theoretical knowledge into practice
- Identify and explore potential areas of opportunities in meat sector
- Develop strategies to maintain quality and safety of meat products
- Time management, working in teams and conflict handling among co-workers
- Safe and secure use of workplace tools, techniques and materials at worksites
- Digital documentation and effective communication skills
- Working in commercial setups and meeting the timelines

Job opportunities available immediately and in the future

The successful pass outs of this course may avail entrepreneurial opportunities and/or fetch job/employment in food sectors as

- Assistant Slaughterer / Helper (Level-II)
- Meat Cutter / Meat Packer / Butcher (Level-III)
- Assistant Meat Processor / Assistant Supervisor (Level-IV)
- Supervisor/ Assistant Line Inspector (Level-V)

Trainee entry level

The entry requirement for this qualification would be Level – 4 qualified in meat technology

Minimum qualification of trainer

5 years of professional experience in food/meat industry after DAE (Food Technology) / BSc Food Technology/Meat Technology

Recommended trainer: trainee ratio

The recommended maximum trainer: trainee ratio for this programme is 1 trainer for 25 trainees.

Medium of instruction i.e., language of instruction

Instruction will be Urdu and English.

Duration of the course (Total time, Theory & Practical time)

This curriculum comprises 8 modules. The recommended delivery time is 1200hours. Delivery of the course could therefore be full time, 5 days a week, for 12 months. Training providers are at liberty to develop other models of delivery, including part-time and evening delivery.

Sequence of the modules

Each module covers a range of learning components. These are intended to provide detailed guidance to teachers (for example the Learning Elements component) and give them additional support for preparing their lessons (for example the Materials Required component). The detail provided by each module will contribute to a standardized approach to teaching, ensuring that training providers in different parts of the country have clear information on what should be taught. Each module also incorporates the industrial needs of Pakistan.

Modules	Theory ¹ Days/hours	Workplace ² Days/hours	Total hours
Module 1 Supervise processing and safety operations in meat industry	32	48	80
Module 2 Prepare meat sausages	32	48	80
Module 3 Monitor Installation and maintenance of equipment's	32	48	80
Module 4 Ensure implementation of cleanliness and hygienic practices in meat processing operations	80	120	200
Module 5 Implement and coordinate legislations for production, processing and storage of meats	64	96	160
Module 6 Monitor proper transportation for meat and meat products	64	96	160
Module 7 Conduct meat sampling	48	72	120
Module 8 Implement HACCP	48	72	120
Module 9 Implement Halal Food Management System	29	39	68
Module 10 Apply project human resource management	24	36	60

Module 11 Develop entrepreneurial skills	24	36	60
Module 12 Implement green skills at workplace	3	9	12

remises

² Training workshop, laboratory and on-the-job workplace

Curriculum Validation Committee

The following members participated in the Curriculum development meeting from November 21-25, 2022 at Park Lane Hotel, Lahore:

c	Name	Designation
1. s	Mr. Muhammad Nasir Khan	Ex DD NAVTTC DACUM Facilitator
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3.	Mr. Muhammad Aasim	Assistant Director NAVTTC Coordinator
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9.	Dr. Muhammad Sohaib	Assistant Professor, Dept. of Food Science and Human Nutrition, University of Veterinary and Animal Sciences, Lahore
10.	Dr. Kashif Nauman	Assistant Professor, Dept. of Meat Science and Technology, University of Veterinary and Animal Sciences, Lahore
11.	Dr. Tabussam Tufail	Assistant Professor, Department of Food Science and Human Nutrition, University of Lahore
12.	Muhammad Saeed Ahmed	Farm Manager, Farm Manager Office, University of Veterinary and Animal Sciences Lahore
13.	Mr. Shakir Manzoor	Manager Operations, Professional Quality Solutions, Lahore

Summary – overview of the curriculum

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 1: Supervise processing and safety operations in meat industry Aim: The aim of this module to develop advanced knowledge, skills and understanding to supervise processing and safety operations in meat industry	LU1. Monitor safe handling of animals/birds at processing site LU2. Supervise selection of healthy animals/birds as per industry requirements LU3. Supervise provision of required tools and equipment for meat and meat products LU4. Monitor halal slaughtering protocols and carcass quality LU5. Monitor safe storage conditions and dispatch of meat and meat products LU6. Resolve problems related to workers and quality in day-to-day operations LU7. Manage appropriate record keeping to fulfilling suppliers/consumer demand	32	48	80
Module 2: Prepare meat sausages Aim: The aim of this module to prepare meat sausages processing operations products	LU1. Prepare meat, ingredients and casings according to sausages specification LU2. supervise mincing of meat LU3. Operate relevant equipment(s) for sausage preparation LU4. Supervise cooking and packaging of sausages LU5. Manage product storage and chilling process	32	48	80

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 3: Monitor installation and maintenance of equipment Aim: The aim of this module to acquire knowledge and skills to supervise installation and maintenance of equipment at meat processing site	LU1. Inspect different Pre working equipment LU2. Supervise post working inspection of different types of equipment LU3. Manage working of sensitive and old processing equipments LU4. Implement emergency preparedness plan LU5. Supervise backup of sensitive equipment/components	32	48	80

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 4: Ensure implementation of cleanliness and hygiene practices in meat processing operations Aim: The aim of this module to ensure implementation of cleanliness and hygiene practices in meat processing operations	LU1. Implement good hygiene practices in meat and meat products processing LU2. Inspect basic GHP requirements regarding personal hygiene LU3. Inspect basic GHP requirements to production, quality and in process control LU4. Supervise basic GMP requirements in regard to cleaning and sanitation LU5. Apply basic GHP requirements in regard to measures for prevention of cross contamination LU6. Apply basic GHP requirements in regard to Pest Management LU7. Inspect stock of chemicals in the store for whole described duration LU8. Supervise working of decontamination equipment and chemicals LU9. Monitor cleaning efficacy LU10. Manage the documentation and records for cleaning and sanitation	32	48	80
Module 5: Implement and coordinate legislations for production, processing, and storage of meat Aim: The aim of this module to get knowledge and skills to coordinate legislations for production, processing, and storage of meat	LU1. Implement legal framework and standards LU2. Apply legal framework related to international regulations LU3. Coordinate different stakeholders for smooth conduction of meat processing operations LU4. Implement slaughtering and food legislation for industry	64	96	160

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 6: Monitor Proper Transportation for Meat / Meat Products Aim: The aim of this module to develop a plan and supervise on site operations for safe transportation of meat and meat products	CU1. Implement required conditions for transportation CU2. Manage proper transportation documentation	64	96	160
Module 7: Conduct meat sampling Aim: The aim of this module to develop advanced knowledge, skills and understanding for sampling of human resource management	CU1. Arrange Sampling Tools CU2. Collect meat sample CU3. Dispatch meat sample CU4. Collect result for implementation	48	72	120
Module 8: Implement HACCP Aim: The aim of this module to develop advanced knowledge, skills and understanding for implementation of HACCP	LU1. Monitor prerequisite program LU2. Conduct hazard analysis LU3. Determine critical control points (CCPs) LU4. Establish critical limits LU5. Develop monitoring procedures LU6. Implement corrective Actions LU7. Establish verification procedures LU8. Establish record and documentation procedures	48	72	120

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 9: Implement Halal Food Management System (HFMS) Aim: The aim of this module to develop advanced knowledge, skills and understanding for implementation of Halal Food Management System	LU1. Monitor implementation of PS 3733 for human resource LU2. Monitor implementation of PS 3733 for materials	29	39	68
Module 10: Apply project human resource management Aim: The aim of this module to develop advanced knowledge, skills and understanding for human resource management	LU1. Assist in determining human resource requirements LU2. Contribute to establishing and maintaining productive team relationships LU3. Assist with human resource monitoring LU4. Contribute to evaluating human resource practices			

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module 11: Develop entrepreneurial skills Aim: The aim of this module to develop a business plan, collect information regarding funding resources, develop a marketing plan and develop basic business communication skills.	LU1. Develop a business plan LU2. Develop a marketing plan LU3. Develop communication skills for sales and marketing	24	36	60
Module 12: Implement green skills at workplace Aim: The aim of this module to skills and knowledge required to reduce energy losses, waste management and utilization of low value meat cuts in product development	LU1. Use power management techniques LU2. Use low value raw meat for value added products and waste management LU3. Use efficient resource management	03	09	12

Module 01: Supervise processing and safety operations in meat industry

Objective: After completing this module, the learner will be capable to identify the quality of different safety operations as per standard specifications during handling and receiving of animals and birds, halal slaughtering protocols, knowledge regarding different tools and equipment required different operations. Trainee will also be able to mitigate the dispute in different situations. Trainee will be able to perform different functions for the safety assurance through record keep of the meat and meat products.

Duration:	80 Hours	Theory:	32 hours	Practical:	48 hours
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Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials (Tools & Equipment) Required	Learning Place
LU1. Monitor safe handling of animals/birds at processing site	- Check animal welfare and handling requirements of animals/birds - Supervise physical Inspection as per specification - Supervise live halal birds/animals at receiving - Supervise feed and water for the live animals - Manage records and documentation	- Importance of safe handling of meat animals/birds - Requirements of safe handling animals/bird - Importance of halal meat animals - Importance of feed and water presence on animal receiving Practical activity: - Practice checking health status and humane handling of animal/birds	Total: 10 hours Theory 4 hours Practical 6hours	- PPEs - Steel toe shoes - Laser temperature gauge /Probe	Class Room and Workplace /Lab

		Handling and discard of dead birds and diseased animals in facility			
LU2. Supervise selection of healthy animals/birds as per industry requirements	- Confirm segregation of animals as per requirement - Verify quarantine abnormal birds/animals - Verify the off feeding and off watering of animals - Inform to veterinarian in case of any abnormality	- Different components of the inspection sheet - Elaborate antemortem inspection requirement for selection of healthy animals - Importance of off-feeding and watering for meat animals - Precautionary measures for handling of diseased animals - Handling of abnormal birds and diseased animals Practical activity: - Perform antemortem inspection of birds/animals - Perform inspection protocol at receiving for animals/birds	Total: 10 hours Theory 4 hours Practical 6hours	- Hand Sanitizer - Antemortem sheet - Safety gloves (steel made) - Net Caps Disposable - Uniform Hats - Steel toe shoes - Laser temperature gauge /Probe	Class Room and Workplace/ Lab

		• Perform handling of dead/diseased birds and animals • Perform record keeping			
LU3. Supervise provision of required tools and equipment for meat and meat products	• Assign specific tasks to the work teams • Verify the provision of required accessories and tools to team • Manage and rectify equipment faults	• Elaborate standard tools and equipment required • Explain basic faults and their rectification protocol • Explain teamwork importance and handling methods of team players Practical activity: • Perform teamwork and practice leadership role • Demonstrate different tools and equipment required in the facility • Demonstrate corrective actions for faulty equipment and tools	Total: 10 hours Theory 4 hours Practical 6hours	• Gloves • Hand Sanitizer • Ritual killing box • Splitter • Brisket cutter • Electrical Wire, Volt meter and Tester • Steel toe shoes • Pneumatic system	Class Room and workplace/ Lab
LU4. Monitor halal slaughtering protocols and carcass quality	• Check direction of animals/birds towards qibla • Recitation of TASMIYA • Verify cutting of Trachea, Esophagus and both the Carotid arteries and Juglar veins	• Enlist methods to determine the Qibla direction • Elaborate TASMIYA and other requirements for slaughtering importance	Total: 10 hours Theory 4 hours Practical	• Gloves • Hand Sanitizer • Ritual killing box • Knives Bonner+ Stake	Class Room and workplace/ Lab

	• Supervise bleeding of birds/animals • Ensure prevention of malpractices during slaughtering	• Importance of cutting of Trachea, Esophagus and both the Carotid arteries and Juglar veins • Elaborate the significance of complete bleeding for safe meat Practical activity: • Supervise halal slaughtering methods • Demonstrate malpractices in workplace and their detection protocol	6hours	• Choppers • Steel sharpener (file) • Safety gloves (steel made) • Steel toe shoes • Laser temperature gauge /Probe • hooks	
LU5. Monitor safe storage conditions and dispatch of meat and meat products	• Check proper stacking of carcass and meat cuts in freezer and chiller • Inspect the packaging during storage • Monitor the temperature of storage area as per instructions • Verify the expiry date on products during dispatch • Manage relevant records	• Explain importance of chilling/freezer in meat and products shelf life • Temperature monitoring methods for meat products • Explain packaging requirements for chilled and frozen meat and meat products	Total: 20 hours Theory 8 hours Practical 12 hours	• Gloves • Hand Sanitizer • Temperature gun, • Chiller insulation suit, • Screw thermometer, • Food grade thermometer, • Steel gloves, • Safety shoes, Helmet,	

		Practical activity: • Perform chilling and freezing operations at workplace • Record Performa for temperature of chiller/freezer, products, rectification mechanism		• Mask, • Gloves, • Goggles	
LU6. Resolve problems related to workers and quality in day-to-day operations	• Manage self and staff • Provide leadership in workplace for problem solving • Participate in, lead, and facilitate teamwork • Lead and develop others • Train small groups	• Knowledge of personality assessment of workers and handling workers disputes • Interaction protocols for management and workers • Worker's motivation protocol • Importance of workers training and development for day-to-day operations Practical activity: • Demonstrate personality assessment protocol • Develop a Performa for worker coordination for better environment of workplace	Total: 10 hours Theory 4 hours Practical 6hours	• Notebook • Pencil • Eraser • Sharpener • Internet Connection • White board marker • Duster	

LU7. Manage appropriate record keeping fulfilling suppliers/consumer demand	• Operate a computer to produce simple documents • Manage workplace information • Manage operations to achieve planned outcomes • Communicate with team regarding demand • Train small groups	• Type of records and their perform for management of in and out of meat products • Traditional and modern internal work management systems • Establishments of chain of command for communication of orders • Designated staff training for smooth operations Practical activities: • Demonstrate computer operations in generating record and keeping record • Supervise data generation and its assessment for future reference	Total: 10 hours Theory 4 hours Practical 6hours	• Notebook • Pencil • Eraser • Sharpener • Internet Connection • White board marker • Duster	
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Module 02: Prepare meat sausages

Objective: After completing this module, the learner will be capable to prepare meat sausages involving selection and safe handling of different meat types at processing site, selection of appropriate ingredients and casings as per product's requirements. In addition, maintain and provide required tools and equipment for mincing, mixing, stuffing and cooking of the product. Furthermore, perform packaging and storage of prepared product as per respective specifications.

Duration:	80 Hours	Theory:	32 hours	Practical:	48 hours
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Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials (Tools & Equipment) Required	Learning Place
LU1. Prepare meat, ingredients and casings according to sausages specification	- Select type of meat as per sausage type - Prepare ingredients as per recipe - Select appropriate casings as per product's specifications	- Knowledge of value added meat products - Knowledge of sausages and their types - Food ingredients and their role for sausages making - Casings for meat sausages Practical activity: - Select different meat types for sausages	Total: 16 hours Theory 08 hours Practical 08 hours	- Knives Bonner+ Stake - Choppers - Steel sharpener (file) - Mince machine 5/8/12 mm - Cutler machine	Class Room and Workplace/Lab

		• Demonstrate casing types for sausages • Identify different ingredients for sausages		• Chopping board (wooden)	
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LU2.Supervise mincing of meat	• Monitor preparation of mincer • Manage meat mincing as per requirement • Inspect quality of minced meat	• Knowledge of meat mincing and disintegration of meat muscles • Understanding quality and safety aspects of minced meat Practical activity: • Perform meat mincing • Perform inspection of minced meat	Total: 14 hours Theory 06 hours Practical 08 hours	• Knives Bonner+ Stake • Choppers • Steel sharpener (file) • Mince machine • Cutler machine • Chopping board (wooden) •	Class Room and Workplace/Lab
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LU3. Operate relevant equipment(s) for sausage preparation	• Prepare meat sausage equipment(s) • Operate the bowl chopper and mixer • Operate stuffer	• Knowledge of equipment's for sausage makings • Understanding of meat stuffing • Explain basic faults and their rectification protocol for sausage making equipment's Practical activity: • Perform operation of meat chopper • Perform meat stuffing	Total: 14 hours Theory 06 hours Practical 08 hours	Knives Bonner+ Stake Sausage stuffer Choppers Steel sharpener (file) Mince machine Cutler machine Chopping board (wooden)	Class Room and workplace /Lab
LU4. Supervise cooking and packaging of sausages	• Monitor cooking equipment • Manage cooking operation for sausage development • Supervise cooling and packaging of cooked product	• Knowledge of cooking methods for sausages • Understanding of sausages packaging Practical activity: • Perform cooking of sausages • Perform sausages packaging	Total: 22 hours Theory 06 hours Practical 16 hours	• Stove • Oven • Packaging machine • Sausages Stuffer	Class Room and workplace /Lab

LU5. Manage product storage and monitor chilling process	• Check the storage specification as per product's need • Manage storage room • Supervise product storage as per specifications	• Knowledge of sausage storage requirement • Understanding of product storage • Knowledge of chilling storage for product Practical activity: • Perform storage conditions for meat sausages • Monitor chilling conditions for product	Total: 14 hours Theory 06 hours Practical 08 hours	Pen Notebook Thermometer Temperature loggers	Class Room and workplace /Lab
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Module 03: Monitor installation and maintenance of equipment

Objective: After completing this module, the trainees will learn the skills and knowledge required to start pre work equipments and inspection of tools and cleanliness requirements. The learner will be capable to supervise old and sensitive equipment and implement emergency preparedness plan in particular circumstances.

Duration:	80Hours	Theory:	32 hours	Practical:	48 hours
Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials (Tools & Equipment) Required	Learning Place
LU1. Inspect different pre working equipment	• Manage inspection schedule of machines • Monitor smooth working requirements of equipment • Verify precautionary measures to operate sensitive equipment • Maintain sufficient space for meat	• Equipment's inspection protocol • Occupational safety and hazard associated risks and their mitigation requirements for equipment • Safe working and maintenance requirements • Describe precautions to control avoid spills, lubrication, and cleanliness of surfaces	Total: 14 hours Theory 06 hours Practical 08 hours	• Gloves • Hand Sanitizer • Manual/record sheets	Class Room and Workplace/Lab

	processing and storage • Inspect the cleanliness of contact surfaces • Manage adequate mechanical ventilation to effectively remove fumes, smoke, steams, and vapors from premises	• Explain equipments required to maintain the positive and negative pressure in the facility Practical activity: • Demonstrate critical machines and their hourly, daily and monthly inspection pattern • Perform positive and negative pressure control in facility			
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LU2. Supervise post working inspection of different types of equipment	• Inspect burnt, sparked, oiled surfaces • Report broken or damaged equipment to management • Manage damaged parts for smooth functioning • Verify record keeping of changed or repaired equipments	• Describe important equipment in the facility which require post working inspection • Mitigation steps to handle burnt, spark and oiled surfaces • Explain communication steps with management and store to correct problem • Return submission of faulty equipment to store and communication for repair deadlines Practical activity: • Perform record keeping of equipment logs • Manage worker in case of exposure with the hazard	Total: 14 hours Theory 06 hours Practical 08 hours	• Gloves • Hand Sanitizer • Gauges, plungers, • Screw drivers • Machine manuals, • Protective guidelines for working with different equipment, • First aid box	Class Room and Workplace/Lab
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LU3. Manage working of sensitive and old processing equipments	• Supervise working of sensitive and old equipments • Manage the continuous monitoring of such machines • Monitor log record for rectification protocols	• Working mechanisms of relevant old and sensitive equipment • Explain monitoring points/ indications for future trouble and trouble shooting • Record sheets for shut down, maintenance time, energizing time and rectification Performa Practical activity: • develop a record Performa for observations of equipment fault • Demonstrate different possible problematic parts of the equipments	Total: 14 hours Theory 06 hours Practical 08 hours	• Gloves • Hand Sanitizer • Wires, coils, sleeves, lubricants, grease, • First aid box, • Glass goggle,	Class Room and workplace/Lab
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LU4. Implement emergency preparedness plan	• Coordinate required resources with the management • Monitor every worker is well communicated with this plan • Check availability of suitable equipment and their timely accessibility plan	• Possible emergency situations and mitigation strategies • Handling mechanism of fire and hot oils • Knowledge for different Indications/signs for emergency • Equipment used in emergency and their possible placement site Practical activity: • Operate emergency equipment • Demonstrate first aid box, its necessary contents and expiry	Total: 24 hours Theory 08 hours Practical 16 hours	• Gloves • Hand Sanitizer • Protective helmets, • First aid box, • Fire extinguishers	Class Room and workplace/Lab
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LU5. Supervise backup of sensitive equipment/components	• Manage specifications, records, and availability status • Arrange the work order/demand notice • Manage store, transport, and maintenance staff • Ensure the suitability of components in case different models are working in the facility • Safeguard documents and records appropriately	• Emergency equipment availability protocols • Manual and electronic components of order/demand notices • Communication protocols for smooth operations • Model and suitability checking protocols • Importance of key and lock mechanism for record and manuals handling Practical activity: • Demonstrate handling and management for emergency	Total: 14 hours Theory 06 hours Practical 08 hours	• Gloves • Hand Sanitizer • Machine manual • Record sheets	Class Room and workplace/Lab
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		backup equipments documentation • Perform communication skills in between the relevant departments			
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Module 4: Ensure implementation of cleanliness and hygiene practices in meat processing operations

Objective: After completing this module, the learner will be capable to implement the quality management system (GMP & GHP). The trainee will be proficient to demonstrate the skills and expertise required to monitor and maintain quality in the work area. The trainee will be able to contribute to the continual improvement of the organization on implementation of audit plan, taking corrective and preventive actions and keeping the traceability records.

Duration:	200 Hours	Theory:	80 hours	Practical:	120 hours
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Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1. Implement good hygiene practices in meat and meat products processing	• Manage using of suitable cleaning agents • Monitor adequate cleaning and/or disinfection surfaces • Manage mechanism against the accumulation of dirt, toxic materials, food debris and the formation of condensation • Monitor cleaning of infrastructure of food	• Understanding of good hygiene practices • Knowledge of using suitable cleaning agents • Knowledge of adequate cleaning and/or disinfection surfaces • Knowledge of mechanism against the accumulation of dirt, toxic materials, food debris and the formation of condensation	Total: 20 hrs Theory: 8 hrs Practical: 12 hrs	• Mask Disposable • Net Caps Disposable • Uniform Hats • Chopping board (wooden) • Chopping board (Teflon food grade) • Slicer machine • Laser temperature gauge /Probe • Hooks • Hanging bars	Class room /Meat Processing hall

	premises as per food hygiene protocol	- Cleaning of infrastructure of premises as per food hygiene protocol <u>Practical Activity</u> - Perform implementation of good hygiene practices in meat and meat products processing unit - Perform implementation of good manufacturing practices in facility		- Knives - Sterilizers - Food grade disinfectants - White light torch	
LU2. Inspect basic GHP requirements regarding personal hygiene	- Monitor hand washing and disinfection procedures before entering production - Report to management in the case of illness - Check wearing personal protective equipment (PPE) as per SOPs regarding hygienic measures	- Knowledge of hand washing and disinfection procedures before entering production - Communication mechanism to report in case of illness - Knowledge of SOPs regarding hygienic measures <u>Practical Activity</u> - Perform GHP regarding personal hygiene - Perform communication mechanism for report of illness	Total: 20 hrs Theory: 8 hrs Practical: 12 hrs	- Mask Disposable - Net Caps Disposable - Uniform Hats - Soap - Hand sanitizer - Record performa - White light torch - Magnifying glass	Class room /Meat Processing hall
LU3. Inspect basic GHP	Manage suitable cleaning agents	Knowledge of using cleaning agents	Total:	- Soap - Hand sanitizer	Class room /Meat

requirements to production, quality and process control	• Monitor adequate cleaning and/or disinfection surfaces • Manage mechanism against the accumulation of dirt, toxic materials, food debris and the formation of condensation • Monitor cleaning of infrastructure of food premises as per food hygiene protocol	• Knowledge of adequate cleaning and/or disinfection surfaces • Knowledge of mechanism against the accumulation of dirt, toxic materials, food debris and the formation of condensation • Cleaning of infrastructure of food premises as per food hygiene protocol <u>Practical Activity</u> • Application of GHP for production quality control and in process controls • Monitor cleaning of premises as per SOPs	20 hrs Theory: 8 hrs Practical: 12 hrs	• Safety gloves (steel made) • Mask Disposable • Net Caps Disposable • Uniform Hats • White light torch • Chopping board (wooden) • Chopping board (Teflon food grade) • Slicer machine • Laser temperature gauge /Probe • Hooks	Processing hall
LU4. Supervise basic GMP requirements in regard to cleaning and sanitation	• Inspect availability of required equipment, chemicals and water supply • Implement in-house relevant unit cleaning and sanitation schedule and SOPs	• Knowledge regarding equipment, chemicals and water supply • Knowledge of in-house relevant unit cleaning and sanitation schedule and SOPs • Record keeping <u>Practical Activity</u>	Total: 20 hrs Theory: 8 hrs Practical:	• Hand sanitizer • PPEs • Safety gloves (steel made) • GHP record • Laser temperature gauge /Probe • Hooks	Class room /Meat Processing hall

	Maintain record keeping associated with the sanitation procedure	- Inspect cross contamination mechanism in facility - Perform GHP to avoid cross contamination	12 hrs	Hanging bars	
LU5. Apply basic GHP requirements in regard to measures for prevention of cross contamination	- Inspect availability of required equipment, chemicals and water supply - Implement in-house relevant unit cleaning and sanitation schedule and SOPs - Maintain record keeping associated with the sanitation procedure	- Knowledge regarding equipment, chemicals and water supply - Knowledge of in-house relevant unit cleaning and sanitation schedule and SOPs - Record keeping <u>Practical Activity</u> - Inspect cross contamination mechanism in facility - Perform GHP to avoid cross contamination	Total: 20 hrs Theory: 8 hrs Practical: 12 hrs	- Hand sanitizer - PPEs - Safety gloves (steel made) - GHP record performa - Laser temperature gauge /Probe - Hooks - Hanging bars	Class room /Meat Processing hall
LU6. Apply basic GHP requirements in regard to pest Management	Inspect segregation of area according to hygiene requirement (zoning) with colour coding uniforms,	How to ensure segregation of area according to hygiene requirement with colour coding uniforms, equipment and accessories	Total: 20 hrs Theory: 8 hrs	- PPEs - Pest glue sheets - White light battery - Record keeping sheets	Class room /Meat Processing hall

	equipment and accessories - Control workers movement in different areas to control cross contamination - Inspect working of drainage systems to avoid spill over in all areas	- Workers control movement in different areas to control cross contamination in facility - Understand drainage systems to avoid spill over in facility - Different types of cages, insect killers and pest killers <u>Practical Activity</u> - Inspect GHP in regard to Pest Management - Supervise Integrated Pest Management in facility	Practical: 12 hrs	Electric fly killer	
LU7. Inspect stock of chemicals in the store for whole described duration	- Identify prone areas and target pest related to workplace area - Supervise preventive measures in regard to pest entry in food processing area - Monitor functioning of installed devices (Insect-o-cutors, Bait Station, Glue Boards, Straws, Cages) - Clean and maintain monitoring devices	- Knowledge of prone areas and target pest related to workplace area - Knowledge regarding areas of pest entry in food processing area - Understanding of devices (Insecocutors, Bait Station, Glue Boards, Straws, Cages) - Cleaning and maintaining monitoring devices - Record keeping <u>Practical Activity</u>	Total: 20 hrs Theory: 8 hrs Practical: 12 hrs	- Stock performa - Record sheets	Class room /Meat Processing hall

	Maintain record and report trend for alternative action	Supervise Stocking of chemicals in the store as per SOP			
LU8. Supervise working of decontamination equipment and chemicals	- Inspect stock of chemicals, their expiry, and PPEs - Implement the manufacturer usage instructions in the facility	- Knowledge of stocking chemicals, expiry dates and PPEs - Knowledge regarding implementation of manufacturer usage instructions in the facility <u>Practical Activity</u> - Working of decontamination equipment and chemicals - Perform decontamination	Total: 20 hrs Theory: 8 hrs Practical: 12 hrs	- PPEs - Food grade decontamination chemical - Wiper - Brushes	Class room /Meat Processing hall
LU9. Monitor cleaning efficacy	- Implement the inspection and maintenance schedule - Maintain the water supply to relevant equipment and monitor their functioning at required temperature - Implementation of SOPs regarding contact time and washing	- Knowledge regarding inspection and maintenance schedule - Maintenance of water supply to relevant equipment and monitor their functioning at required temperature - Knowledge of SOPs regarding contact time, washing <u>Practical Activity</u> - Monitor validity of cleaning efficacy at meat processing unit	Total: 20 hrs Theory: 8 hrs Practical: 12 hrs	- PPEs - Tissue papers - White battery light - Scrappers	Class room /Meat Processing hall

LU10. Manage the documentation and records for cleaning and sanitation	• Coordinate with relevant staff for collection of cleaning and sanitation samples • Manage the delivery of samples to the designated lab • Interpret laboratory control records • Implementation of the lab report results and suggested modification in protocol	• How to coordinate with relevant staff • Knowledge of delivery of samples to the designated lab • Interpretation of laboratory control records • Knowledge regarding implementation of the lab report results and suggested modification in protocol <u>Practical Activity</u> • Inspect documentation and record keeping	Total: 20 hrs Theory: 8 hrs Practical: 12 hrs	• Animal Quarantine performance • Record sheets	Class room /Meat Processing hall
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Module 05: Implement and coordinate legislations for production, processing and storage of meat

Objective: After completing this module, the learner will be proficient to perform in production area according to set quality standards and manual. The trainee will be capable to statistically monitor root causes of variation observed during a batch production through shift and gap analysis. The trainees will be able to design risk assessment management tools CCP and PRP for production of a batch as per standards and coordination in between different components meat supply chain.

Duration:	160 Hours	Theory:	64 hours	Practical:	96 hours
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Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials (Tools & Equipment) Required	Learning Place
LU1. Implement legal framework and standards	- Coordinate with QA department for information about regulations - Implement relevant section of regulation in the designated areas - Manage regular communication with staff for implementation - Inspect safety rules and regulations for the food processing industry	- Describe different law and standards relevant to the facility - Explain important clauses and sub clauses related to common and necessary facility protocols - Explain facility relevant international standards and their importance in the maintenance of the product quality and safety	Total: 40 hours Theory 16 hours Practical 24 hours	- Packaging material, Certificate of analysis, - Technical manual, Chemicals as per required test - Log book - PPEs	Class Room and Workplace/ Lab

		• Explain protocols for the presence of relevant regulation at required point • Explain importance of standards record keeping Practical activity: • Develop and inspect check-sheets for compliance of regulations			
LU2. Apply legal framework related to international regulations	• Coordinate with QA department for information about international regulations and requirements • Inspect regular random sampling for compliance to regulations • Implementation of regulations according to consignment to the designated country • Supervise provision of legal documentation with the respective country consignment	• Describe SOPs for the production according to the international regulations • Explain salient points in the international regulations and standards • Describe SOPs (sampling) from different sections of the facility • Explain quality plan to execute the production of a batch Practical activity: • Data recording on documents and performa	Total: 40 hours Theory 16 hours Practical 24 hours	• Laws and regulation manuals, • Technical manual, Quality manual, • First aid box, • Lab coat	Class Room and Workplace/ Lab

		required to go along the consignments			
LU3. Coordinate different stakeholders for smooth conduction of meat processing operations	• Manage the reception of requirement orders from the concerned department • Ensure provision of essentials (services or equipments or accessories) for every step of processing with different relevant departments • Ensure quality of essentials according to requirements • Communicate with stakeholders for smooth execution of customer requirement	• Explain order protocol and inspection at receiving for ensuring the quality of received orders • Communication mechanisms for coordination in between the departments • Protocols for suitable availability of back up equipments and utensils • Required quality standards to produce quality products • Documents for communication between different relevant department for smooth execution Practical activity: • Practice data recording on different legal and necessary documentation	Total: 40 hours Theory 16 hours Practical 24 hours	• Technical manual, • Quality manual & SOPs, • First aid box, • Log book, • PPEs	Class Room and workplace/ Lab

		• Management of records in key and lock for safety			
LU4. Implement slaughtering and food legislation for industry	• Coordinate with management for concerned mandatory laws and regulations • Communicate with staff on these requirements • Manage the traceability and other processes required documentation	• Explain communication protocols with the management and relevant office for effective execution • Explain importance of coordination in between management and workers • Explain importance of inhouse traceability and product traceability • Explain traceability performance and its importance in product recall mechanism • Explain postproduction review and record • Differentiate between quality control & quality assurance. • Explain importance of Good manufacturing practices (GMP) monitoring and recording log book	Total: 40 hours Theory 16 hours Practical 24 hours	• Quality manual, • SOPs, • Log book, • PPEs • Animal Quarantine performance	Class Room and workplace/ Lab

		Practical activity: • Implement GHP and GMP in the facility • Supervise different quality standards and their CCPs in the facility			
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Module 06. Monitor proper transportation for meat / meat products

This Competency Standard covers the competencies required to apply skills and knowledge to ensure proper transportation of meat as per approved guidelines and procedures. Trainees will be expected to ensure transportation of meat and meat products as per standard procedure.

Duration:	160 Hours	Theory:	64 hours	Practical:	96 hours
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Competency Units	Performance Criterion	Learning Elements	Duration	Materials (Tools & Equipment) Required	Learning Place
LU1. Implement required conditions for transportation	• Monitor availability, cleaning, and disinfection of reefer • Monitor required reefer temperature to transport meat. • Manage proper packaging at loading • Monitor meat temperature at loading • Manage proper meat stacking at loading	• Knowledge about importance of transportation in the meat shelf life • Important structural components of reefers • Different types of reefers and chilling mechanism • Importance of maintenance of temperature in the reefer during transportation Practical activity:	32 hours Theory 48 hours Practical Total:80 hours	Laser thermometer Screw thermometer Electrical connecting wire Halal food grade disinfectants Scrubbers Brushes Dry Ice	

		• Perform temperature recording in and out of reefer • Perform packaging of carcass/meat for transportation through reefers		PPEs Carcass wrappers Ropes for tie	
LU2. Manage proper transportation documentation	• Manage documentation according to consignment requirement • Provide certificate of analysis (COA) of the batch/lot with supply • Provide material safety data sheet (MSDS) of lot/batch with supply • Record destination area of supply	• Explain importance of documents • Types of documents prepared with consignment in facility • Communication protocols with different relevant organizations for the outside facility documentation • Types of documents obtained from outside the facility Practical activity:	Theory 32 Practical 48 Total 60	MSDS sheets Export data sheets Meat Halal certificate Animal quarantine approval Air waybills Air way booking sheets	

		• Prepare perform for the in-facility documentation • Perform communication with relevant organization out side the facility		Sea ship booking and approval sheets	
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Module 07: Conduct Meat Sampling

Objective: After completing this module, This Competency Standard covers the competencies required to apply skills and knowledge to conduct proper meat sampling as per approved guidelines and procedures. Trainees will be expected to ensure transportation of meat and meat products as per standard procedure.

Duration:	120 Hours	Theory:	48 hours	Practical:	72 hours
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Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials (Tools & Equipment) Required	Learning Place
LU1. Arrange Sampling Tools	- Manage availability of PPEs and tools - Manage availability of swabs and sterilized containers - Manage availability of suitable media for air sampling	- Describe PPEs and their importance - Knowledge of sampling swabs and containers - Understanding of media for sampling <u>Practical Activity:</u> - Demonstrate PPEs and their importance - Demonstrate media for analysis	12 hours Theory 24 hours Practical Total:36 hours	Sterile bags Tape sealers Wrapper Freezer	Class Room and workplace
LU2. Collect meat sample	- Monitor implementation of sampling plan - Manage sampling in hygienic manner	- Knowledge of meat sampling - Understanding of meat sampling plans <u>Practical Activity:</u>	12 hours Theory 24 hours	Sterile bags Tape sealers Wrapper Freezer	Class Room and workplace

		- Demonstrate meat sampling - Develop and plan sampling plan	Practical Total:36 hours		
LU3. Dispatch meat sample	- Monitor coding and labelling of sample - Coordinate with the concerned lab - Maintain documentation - Manage safe and hygienic delivery of samples	- Knowledge of sample coding - Understanding of meat samples labelling - Knowledge of meat sampling documentation <u>Practical Activity:</u> - Perform meat sample coding - Perform meat samples labelling	12 hours Theory 24 hours Practical Total:36 hours	Sterile bags Tape sealers Wrapper Freezer	Class Room and workplace
LU4. Collect result for implementation	- Receive test report at designated time - Report to management in case of deviations - Implement decision received from the management	- Knowledge of meat samples report - Understanding of meat samples parameters deviations <u>Practical Activity:</u> - Design and perform meat samples report	12 hours Theory 24 hours Practical	Sterile bags Tape sealers Wrapper Freezer	Class Room and workplace

		Identify and develop plan for samples deviation from report	Total:36 hours		
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Module 08: Implement HACCP

Objective: After completing this module, the learner will be capable skills and knowledge required to implement principles of HACCP for production of meat products. The trainees will be able to enhance skills to implement HACCP system.

Duration:	120 Hours	Theory:	48 hours	Practical:	72 hours
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Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials (Tools & Equipment) Required	Learning Place
LU1. Monitor Prerequisite Program	- Verify good hygiene practices - Verify good manufacturing practices	- Describe PRPs and their importance - Enlist elements of PRPs in facility - Importance of PRPs implementation in facility. - Define stages of HACCP - Describe principles of HACCP <u>Practical Activity:</u> - Demonstrate implementation of PRPs - Monitor good hygiene practices in work area	06 hours Theory 09 hours Practical Total:15 hours	PRP Performa Record sheets	Class Room and workplace
LU2. Conduct Hazard Analysis	Develop list of hazards associated with raw material	- Describe process flow diagram - Hazard and its types	06 hours Theory	Risk assessment matrix charts	Class Room and workplace

	- Develop list of hazards associated with processing - Develop list of hazards associated with packaging and storage. - Identify significant risks	- Enlist hazards associated with raw material - Enlist hazards associated in meat processing - Enlist hazards associated in packaging and storage - Describe likelihood of a hazard - Describe severity of a hazard - Describe characterization of hazards based on severity and likelihood <u>Practical Activity:</u> - Demonstrate risk assessment matrix - Identify significant risks	09 hours Practical Total:15 hours	Record sheets physical, chemical and biological hazard samples for identification	
LU3. Determine critical control points (CCPs)	- Develop critical control points for each hazards associated with raw materials - Develop critical control points for each hazards	- Define critical control point in a process - Elaborate CCPs associated with raw materials - Describe CCPs associated with processing	06 hours Theory 09 hours Practical	CCP determinant charts Record sheets	Class Room and workplace

	associated with raw materials <i>associated with processing</i> • Develop critical control points for each hazard associated with <i>packaging and storage</i> • Monitor acceptable levels for each point	• Enlist CCPs associated with packaging and storage • Define different levels of acceptance <u>Practical Activity:</u> • Demonstrate decision tree for CCP identification at various levels of processing and packaging • Develop acceptable levels according to processing operations	Total:15 hours		
LU4. Establish critical limits	• Verify critical limits for critical control points associated with raw material • Verify critical limits for critical control points associated with processing • Verify critical limits for critical control points associated with packaging and storage	• Define critical control limits • Describe standard critical control limits for CCPs associated with raw materials • Elaborate critical control limits for CCPs associated with processing • Describe critical control limits for CCPs associated with packaging and storage • Define control charts	06 hours Theory 09 hours Practical Total:15 hours	CCL criteria Control charts Record sheets	Class Room and workplace

		<u>Practical Activity:</u> • Demonstrate establishment of critical control limits • Demonstrate control chart observations			
LU5. Develop monitoring procedures	• Establish monitoring procedures for critical control limits associated with raw materials • Establish monitoring procedures for critical control limits associated with processing • Establish monitoring procedures for critical control limits associated with packaging and storage	• Define monitoring procedures • Explain monitoring procedures for CCLs associated with raw materials • Describe monitoring procedures for CCLs associated with processing • Explain monitoring procedures for CCLs associated with packaging and storage <u>Practical Activity:</u> • Demonstrate monitoring procedures for CCLs	06 hours Theory 09 hours Practical Total:15 hours	CCL standards Control charts Monitoring sheets Record sheets	Class Room and workplace
LU6. Implement corrective Actions	• Monitor corrective actions for deviating critical control limits associated with raw materials	• Define loss of control • Describe corrective actions for CCLs associated with raw materials	06 hours Theory	Corrective action plans Record sheets	Class Room and workplace

	• Monitor corrective actions for deviating critical control limits associated with processing • Monitor corrective actions for deviating critical control limits associated with packaging and storage	• Elaborate corrective actions for CCLs associated with processing • Explain corrective actions for CCLs associated with packaging and storage <u>Practical Activity:</u> • Demonstrate corrective actions for process deviations during production, packaging and storage	09 hours Practical Total:15 hours		
LU7. Establish verification procedures	• Monitor verification procedures for corrective actions associated with raw materials • Monitor verification procedures for corrective actions associated with processing • Monitor verification procedures for corrective actions associated with packaging and storage	• Elaborate verification procedures for corrective actions associated with raw materials • Explain verification procedures for corrective actions associated with processing • Describe verification procedures for corrective actions associated with packaging and storage <u>Practical Activity:</u> • Demonstrate verification procedure for meat	06 hours Theory 09 hours Practical Total:15 hours	Verification plans Record sheets	Class Room and workplace

		products in different process operations			
LU8. Establish record and documentation procedures	• Monitor documentation procedures for processes associated with raw materials • Monitor documentation procedures for processes associated with processing • Monitor documentation procedures for processes associated with packaging and storage	• Describe record and documentation procedure for processes associated with raw materials • Explain record and documentation procedure for process steps associated with processing • Elaborate record and documentation procedure for processes associated with packaging and storage <u>Practical Activity:</u> • Demonstrate record keeping and documentation procedure	06 hours Theory 09 hours Practical Total:15 hours	• Record Sheets	Class Room and workplace

Module 9. Implement Halal Food Management System (HFMS)

Objective: After completing this module, the learner will be capable to implement Halal Food Management System (HFMS), based on Pakistan Halal Standard PS 3733 related to poultry and livestock sector.

Duration:	68Hours	Theory:	29 hours	Practical:	39 hours
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Competency Unit	Performance Criteria	Learning Elements	Duration	Materials (Tools & Equipment) Required	Learning Place
LU1. Monitor implementation of PS 3733 for human resource	- Supervise slaughterer competency - Supervise slaughtering process - Supervise personal hygiene and food safety	- Knowledge about knife sharpness, and cut vessels - Explain bleeding time and its importance in the meat safety - Knowledge about zoonotic diseases - Important components of personal hygiene - Explain methods to check and maintain personal hygiene <u>Practical Activity:</u>	15 hours Theory 18 hours Practical Total:33 hours	- Manual PS3733 - Record Sheets	Classroom and workplace

		• Perform slaughtering as per PS 3733 SOPs • Perform personal hygiene check as per PS 3733 SOPs			
LU2. Monitor implementation of PS 3733 for materials	• Supervise valid halal certificates for required materials • Supervise availability of halal material (carcass cloth, stamping ink and ingredients)	• Introduction of different certification organizations and their certification protocols • Explain certification requirements of importing countries • Type of certificates for ink, additives, cloth, chemicals <u>Practical Activity:</u> • Perform verification of certifications • Preparation of documents for the exporting consignments	14 hours Theory 21 hours Practical Total:35hours	• Manual PS3733 • Record Sheets	Classroom and workplace

Module 10: Apply project human resource management

Objective: After completing this module, the learner will be capable to assist the management in determining the human resource management of the facility. Trainee will be able to contribute his contribution in establishing and maintaining productive team relationships, assist with human resource monitoring and contribute to evaluating human resource practices for productive environment in the facility.

Duration:	60 Hours	Theory:	24 hours	Practical:	36 hours
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Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials (Tools & Equipment) Required	Learning Place
LU1. Assist in determining human resource requirements	- Analyze work breakdown structure to determine human resource requirements - Prepare a skills analysis of project personnel against project task requirements - Assist in assigning responsibilities for achieving project deliverables	- Different components of required workforce - Qualification and responsibilities of workforce in different section of the facility - Key performance Indicator and their analysis mechanism - Workforce segregation protocols for suitable assignment for desired results Practical activity:	Total: 15 hours Theory 6 hours Practical 9 hours	- Technical manual, Quality manual, Safety standards/ - Guidelines, - conformities form - Corrective action form,	Class Room and Workplace/ Quality office

		• Demonstrate observation and practical skill analysis for promotion and increments			
LU2. Contribute to establishing and maintaining productive team relationships	• Actively seek views and opinions of team members during task planning and implementation • Promote cooperation and effective activities, goals and relationships within team • Communicate with others using styles and methods appropriate to organizational standards, group expectations and desired outcomes • Communicate information and ideas to others in a logical, concise and understandable manner • Regularly seek feedback on nature and quality of work relationships, and use feedback as basis for own improvement and development	• Different types of surveys and feedback mechanism for the communication between the management and the workforce • Explain possible incentives mechanisms for the motivating the team members for required results • Explain different communication skills for the result-oriented protocols <u>Practical activity:</u> • Demonstrate Traditional, manual, and electronic communication skills for the swift and effective communication	Total: 15 hours Theory 6 hours Practical 9 hours	• SOPs, Technical manual, Quality manual, • Safety standards/ • Guidelines • Log book, • PPEs	Class Room and Workplace/ Quality office

		Record keeping on established performance for recommendation			
LU3. Assist with human resource monitoring	- Monitor work of project personnel against assigned roles and responsibilities within delegated authority levels - Monitor and control actual effort against project plan - Review skill levels against allocated tasks and recommend solutions, where required, to others - Advise others within delegated authority when assigned responsibilities are not met by project personnel	- Define effective assessment protocols without effecting the esteem of the workforce - Explain mechanism for continuous monitoring of workforce through latest technologies like drop box, GPS, PDA etc. - Explain feedback mechanism and communication skills - Explain correlation between corrective and preventive actions - Explain dispute types and smooth resolving mechanism for these disputes - Explain assessment mechanism for skill gap protocols <u>Practical activities:</u>	Total: 15 hours Theory 6 hours Practical 9 hours	- Technical manual, - Quality manual, - SOPs, - Audit plan form, Root cause analysis form, corrective and preventive action plan form, - Internet connection - Log book - PPEs	Class Room and workplace/ Quality office

	• Undertake work in a multi-disciplinary environment according to established human resource management practices, plans, guidelines, and procedures • Resolve conflict within delegated authority according to agreed dispute-resolution processes • Assist in offering human resource development opportunities to individuals with skill gaps	• Demonstrate internal software usage or emails • Demonstration of dispute resolves in between the workforce			
LU4. Contribute to evaluating human resource practices	• Contribute to assessing effectiveness of project human resources management • Document lessons learned to support continuous improvement processes	• Essential components of the workforce for the smooth conduct of the designed responsibilities • Human resource documents required for the documentation of the feedback and further improvement protocols	Total: 15 hours Theory 6 hours Practical 9 hours	• Quality manual, Safety standards/ • Guidelines, • SOPs, • PPEs • Customer feedback form,	Class Room and workplace/ Quality office

		Practical activities: • Practice record keeping performance of workforce aptitude • Sharing of records with management for decisions	s	• Log book	
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Module 11: Develop entrepreneurial skills

Objective of the module: This module covers the knowledge and skills required to develop entrepreneurial skills for meat processing industry by contribution in business plan for production and product safety enhancement.

Duration:	60 Hours	Theory:	24 hours	Practical:	36 hours
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Duration: 60Hours

Theory: 24Hours

Practice: 36 Hours

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
LU1. Develop a business plan	- Conduct a market survey to collect following information ➤ Business Model ➤ Financials ➤ Equipment Estimation ➤ Revenue Generation Sources ➤ Marketing strategy ➤ Market Trends ➤ Overall Expenses - Select the best option in terms of cost, service, quality, sales, operational expenses - Compile the information collected through the	- What is business model - Method to make an ideal business plan - Model for cost and equipment estimation - Knowledge of marketing strategy and demand supply models - Marketing strategies for meat and meat products <u>Practical Activity</u> - Perform business model - Perform marketing of product	Total: 20 hrs Theory: 8 hrs Practical: 12 hrs	- Notebook - Pencil - Eraser - Sharper - Computer System	Class room/Meat Processing Hall

	market survey, in the business plan format				
LU2. Develop a marketing plan	• Make a marketing plan for the service products, price, placement, promotion, people, packaging and positioning • Include the information of marketing plan in the business plan	• Knowledge of marketing plan and its significance • Steps of marketing plan • 3Ps of Marketing plan • Method to make an ideal marketing plan <u>Practical Activity</u> • Make marketing plan for new business and ROI • Perform marketing plan for beef • Perform marketing of low value meat cuts	Total: 20 hrs Theory: 8 hrs Practical: 12 hrs	• Note book • Pencil • Manuals	Class room/Farm/Hatchery
LU3.Develop communication skills for sales and marketing	• Use effective communication skills • Use different modes of communication to communicate effectively e.g.: presentation,	• Knowledge of communications skills • Modes of communication • What is effective communication	Theory= 8 hrs Practical 12 hrs	• Note book • Pencil • Eraser • Sharper • Internet Connection	Class room/Hatchery

	speaking, writing, listening, visual representation, reading, social media etc. • Use specific business terms used in the market	• Knowledge of 7 Cs of communication • Difference between External and internal communication • Describe specific business terms used in market Practical Activity: • Perform effective communication skills like speaking • Perform presentation of business model • Perform external and internal communications (speaking, listening, visual representation and reading). • Usage of specific business terms	Total= 20 hrs	• White board marker • Duster • Computer System • Printer • Scanner • Calculator • White Board • Multimedia • Manuals	
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Module 12: Implement green skills at workplace

Objective: This competency standard covers skills and knowledge required to reduce energy losses, waste management and utilization of low value meat cuts in product development. After this competency standard, trainee will be able to develop knowledge and competence in an efficient way for raw materials, resources, power management and waste management.

Duration:12Hrs

Theory:03Hrs

Practical:09Hrs

Credit: 1.2

Learning Unit	Learning Outcomes	Learning Elements	Duration	Materials Required	Learning Place
CU1. Use power management techniques	- Use both sides of paper for printing - Reduce the brightness of screen, saving battery, which in turn helps in saving the power, and most importantly turning off the device when not in use. - The use of LED and LCD monitors in place of CRTs - Select blend of group policies, Windows in-built sleep function and various software systems	- Describe the importance of green energy with respect to global warming - Power management techniques - Difference between LED and LCD monitor	Theory- 1 hr Practical-3 hrs. Total- 4 hrs	- Internet - Laptop/Computer - White board - Projector screen - Multimedia projector	Classroom

CU2. Use low value raw meat for value added products and waste management	• Use chilling equipment's resulting lower wastage of meat • Use low value meat in development of value added meat products • Improve workplace premises for waste management considering safety and quality • Rational use of water for processing and cleaning	• understand techniques used for waste management • Knowledge of utilization of low value meat for product development • Knowledge of water standard for processing and cleaning	Theory- 1 hr Practical- 3 hrs Total- 4 hrs	• Knife • Mince machine • Chopper • Boards • Steel mesh gloves • Shoes • PPES	Class room/Processing area
CU3. Use efficient resource management	• Turn off computer when not using • Switch off the external devices when not needed • Facilitate energy management • Use devices which consume low energy • Use handheld equipment rather than PCs for basic tasks	• Techniques used for resource management • Leadership skills • Resource management techniques	Theory- 1 hr Practical- 3 hrs Total- 4 hrs	• Internet • Laptop/Computer • White board • Projector screen • Multimedia projector •	Classroom

General assessment guidance for “*Supervisor*”

Good practice in Pakistan makes use of sessional and final assessments, the basis of which is described below. Good practice by vocational training providers in Pakistan is to use a combination of these sessional and final assessments, combined to produce the final qualification result.

Sessional assessment is going on all the time. Its purpose is to provide feedback on what students are learning:

- To the student: to identify achievement and areas for further work
- To the teacher: to evaluate the effectiveness of teaching to date, and to focus future plans.

Assessors need to devise sessional assessments for both theoretical and practical work. Guidance is provided in the assessment strategy

Final assessment is the assessment, usually on completion of a course or module, which says whether or not the student has "passed". It is – or should be – undertaken with reference to all the objectives or outcomes of the course, and is usually fairly formal. Considerations of security – ensuring that the student who gets the credit is the person who did the work – assume considerable importance in final assessment.

Methods of assessment

For lessons with a high quantity of theory, written or oral tests related to learning outcomes and/ or learning content can be conducted. For workplace lessons, assessment can focus on the quality of planning the related process, the quality of executing the process, the quality of the product and/or evaluation of the process.

Methods include direct assessment, which is the most desirable form of assessment. For this method, evidence is obtained by direct observation of the student's performance.

Examples for direct assessment of Supervisor:

- Work performances, for example
- Work Performances, for example
- Demonstrations, for example
- Direct questioning, where the assessor would ask the student why he is preparing for a particular application.

- Paper-based tests, such as short answer questions on health and safety, communication skills etc.

Indirect assessment is the method used where the performance could not be watched and evidence is gained indirectly.

Examples for indirect assessment of Supervisor include:

- Work products, Project portfolio
- Workplace documents, such as a report on health and safety etc.

Indirect assessment should only be a second choice. (In some cases, it may not even be guaranteed that the work products were produced by the person being assessed.)

Principles of assessment

All assessments should be valid, reliable, fair and flexible:

Fairness means that there should be no advantages or disadvantages for any assessed person. For example, it should not happen that one student gets prior information about the type of work performance that will be assessed, while another candidate does not get any prior information.

Reliability means that the assessment is consistent and reproducible. The results for the particular application should be the same.

Flexibility means that the assessor has to be flexible concerning the assessment approach. For example, if there is a power failure during the assessment, the assessor should modify the arrangements to accommodate the students' needs.

Assessment strategy for “Supervisor”

This curriculum consists of 8 modules

1. Install/Use system software
2. Install/Use application software
3. Install/Configure hardware components/peripheral devices
4. Draft office documents
5. Perform efficient web browsing and manage emails
6. Perform workplace communication skills
7. Perform installation and configuration of network cables
8. configure networking switches, routers and IP

Sessional assessment

The Sessional assessment for all modules shall be in two parts: theoretical assessment and practical assessment. The Sessional marks shall contribute to the final qualification.

Theoretical assessment for all learning modules must consist of a written paper lasting at least half-hours per module. This can be short answer questions.

For practical assessment, all procedures and methods for the modules must be assessed on a sessional basis. Guidance is provided below under Planning for assessment.

Final assessment

Final assessment shall be in two parts: theoretical assessment and practical assessment. The final assessment marks shall contribute to the final qualification.

The final theoretical assessment shall consist of short-answer questions. This part shall cover the technical, functional and generic modules:

For Level -5

Module 1 : Supervise processing and safety operations in meat industry

Module 2 : Monitor meat processing operations

Module 3 : Monitor Installation and maintenance of equipment

Module 4 : Ensure implementation of cleanliness and hygiene practices in meat processing operations

Module 5 : Implement and coordinate legislations for production, processing and storage of meat

Module 6 : Ensure safe, traceable and hygienic transportation of different lots for meat and meat products

Module 7 : Apply project human resource management

Module 8 : Develop entrepreneurial skills

For the final practical assessment each student shall be assessed over a period of one day, with Four hours sessions for each student. During this period, each student must be assessed on his/her ability to the following parameters of security services;

- Area of responsibility
- Tasks
- Guards
- Resources and duties

Complete list of tools and equipment

Sr#	Description	Quantity
1.	Ritual killing box	1
2.	Thermometers	5
3.	pH meter	1
4.	Knives	5 sets
5.	Knife sharpening steel	As per requirement
6.	Calculator	25
7.	Meat trolleys	5
8.	Computers	25
9.	Chopping board (wooden)	25
10.	Chopping board (Teflon food grade)	25
11.	Safety gloves (steel made)	25
12.	Mask Disposable	As per requirement
13.	Net Caps Disposable	As per requirement
14.	Uniform Hats	As per requirement
15.	Slicer machine	2
16.	Laser temperature gauge /Probe	3
17.	Fire Buckets	5
18.	Fire Extinguishers	5
19.	Grinder	1
20.	Internet router	2
21.	Meat Mixer	2
22.	Multimeter	2
23.	Printer	2
24.	Relative humidity sensors	2
25.	Knives Bonner+ Stake	25
26.	Choppers	25

27.	Cutler machine	5
28.	Ventilation Fan	2
29.	Steel toe shoes	25
30.	Slicer machine	2
31.	Laser temperature gauge /Probe	5
32.	Hooks	15 (5 each type)
33.	Hanging bars	5
34.	Overhead railing/stand	1
35.	Desking/dehiding machine	1
36.	Splitter	1
37.	Cutting table (Teflon top)	5
38.	Chiller	1
39.	Weighting Scale (capacity up to 15±1kg)	1
40.	Freezer	2
41.	Weighting Scale (capacity minimum 200 kg and above)	1
42.	Tray wrapping machine	2
43.	Shelves	5
44.	Mince machine 5/8/12 mm	2
45.	Horn and hock joint cutter	1

List of supplies

Sr. #	Description	Quantity
1.	Chemicals	As per requirement
2.	Law and standard manuals	25
3.	First aid Box	2
4.	Plastic bags	As per requirement
5.	PPEs	25 sets
6.	Registers (Log, Hatchery, Production, Flock)	25 sets
7.	Notebooks	As per requirement
8.	Stationary	As per requirement

Credit values

The credit value of the National Certificate Security Services is defined by estimating the amount of time/ instruction hours required to complete each competency unit and competency standard. The NVQF uses a standard credit value of 1 credit = 10 hours of learning (Following Higher Education Commission (HEC) guidelines).

The credit values are as follows:

Competency Standard	Estimate of hours	Credit
Supervise processing and safety operations in meat industry	200	20
Monitor meat processing operations	200	20
Monitor Installation and maintenance of equipment's	160	16
Ensure implementation of cleanliness and hygienic practices in meat processing operations	160	16
Implement and coordinate legislations for production, processing and storage of meat	160	16
Ensure safe, traceable and hygienic transportation of different lots for meat and meat products	180	18
Apply project human resource management	80	8
Develop entrepreneurial skills	60	6