



# Summary of Learning Outcomes

Level 2 Award in Food Safety  
for Manufacturing

Qualification Number: 500/6352/2

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## SUMMARY OF LEARNING OUTCOMES FOR LEVEL 2 AWARD IN FOOD SAFETY FOR MANUFACTURING

### 1. Summary of Learning Outcomes:

#### 1.1 Introduction to Food Safety

1.1.1 Candidates must understand the importance of behaving responsibly by being able to:

1.1.2 Explain the importance of food safety

1.1.2.1 Identify what might happen if hazards are not controlled

1.1.2.2 Know how to report problems or make suggestions for improvement

#### 1.2 Microbiology (Multiplication and Survival Hazards)

1.2.1 Candidates must understand how micro-organisms pose a hazard to food safety and spoilage of food by being able to:

1.2.1.1 State what micro-organisms are and outline where they may be found

1.2.1.2 Identify multiplication and survival hazards posed by pathogenic bacteria and know why it is important to control them

1.2.1.3 Recognise the signs of food spoilage

#### 1.3 Contamination Hazards and Controls

1.3.1 Candidates must understand the concept of food hazards caused by contamination of food by being able to:

1.3.1.1 State common causes of microbiological, physical, chemical and allergenic hazards in a food manufacturing operation and how the risk from each can be controlled

#### 1.4 Food Poisoning and its Control

1.4.1 Candidates must know and understand the main reasons for food poisoning by being able to:

1.4.1.1 Identify the main characteristics of food related illness

1.4.1.2 State the main ways of preventing food poisoning in a manufacturing environment

1.5 HACCP from Delivery to Distribution

1.5.1 Candidates must understand how food safety procedures can prevent food borne illness and the contamination of food by being able to:

1.5.1.1 Recognise the responsibilities of food handlers and food manufacturing businesses regarding HACCP

1.5.1.2 Describe hazards, control measures, monitoring and corrective actions associated with the delivery, storage, preparation, thawing, hot processing, cooling, freezing, packing, final storage and transportation of manufactured food products

1.5.1.3 Know the importance of documentation and give examples of records that may be kept

1.6 Food Handlers and Personal Hygiene

1.6.1 Candidates must understand the importance of keeping themselves clean and hygienic by being able to:

1.6.1.1 Recognise the principal legal responsibilities of food handlers regarding personal hygiene

1.6.1.2 Identify the general principles of good personal hygiene and outline how to control hazards associated with poor personal hygiene

1.6.1.3 Outline how food handlers can be sources and vehicles of food poisoning bacteria

1.6.1.4 State when to wash hands and why it is important to wash hands correctly

1.6.1.5 Outline how open wounds and skin complaints can contaminate food

1.6.1.6 Identify suitable standards of dress and outline its importance for food handlers

1.6.1.7 Know why it is important to report illness and infections promptly

1.7 Food Premises and Equipment

1.7.1 Candidates must be aware of their role in reducing risks of food contamination from premises and equipment including separation of processes and colour coding, by being able to:

1.7.1.1 Recognise and report problems that could result in food contamination

1.7.1.2 Outline measures to ensure that equipment does not result in food contamination

1.7.1.3 Outline the types of waste found in food manufacturing and why it is important to clear and dispose of waste promptly

1.8 Food Pests and Control

1.8.1 Candidates must understand the need for food businesses to control pests and be able to:

1.8.1.1 Recognise the principal responsibilities of food handlers and food businesses regarding pest control

1.8.1.2 State the hazards that can be posed by food pests and their control and give reasons for controlling pests in a manufacturing operation

1.8.1.3 Outline the main signs of a pest infestation, who to report signs of pests to and the actions that must be taken if pests are sighted in the workplace

1.9 Cleaning and Disinfection

1.9.1 Candidates must understand the importance of effective cleaning and disinfection in food manufacturing premises and be able to:

1.9.1.1 Recognise the principal responsibilities of food handlers regarding cleaning and disinfection of food manufacturing premises

1.9.1.2 Know why food manufacturing premises and equipment must be clean

1.9.1.3 Outline the importance of 'clean and clear as you go' and cleaning schedules

- 1.9.1.4 Understand the uses of different cleaning chemicals
- 1.9.1.5 Identify typical areas in a manufacturing operation that will require disinfecting or sanitising

## 1.10 Food Safety Enforcement

1.10.1 Candidates must have a general understanding of the need for food safety enforcement and be able to:

- 1.10.1.1 Identify a food handlers role when an enforcement officer visits a food premise
- 1.10.1.2 State the types of penalties that can be applied if a food business or food handler contravenes food safety legislation.

## 2. **Outcome Details:**

### 2.1 Introduction to Food Safety

2.1.1 Candidates must understand the importance of behaving responsibly by being able to:

- 2.1.1.1 Explain the importance of food safety
  - (a) Define the terms food safety, food poisoning and hazard
  - (b) Identify the different types of hazard in food safety
- 2.1.1.2 Identify what might happen if hazards are not controlled
- 2.1.1.3 Identify the costs of poor food safety practices to a business
- 2.1.1.4 Identify how good food safety practices can benefit a food business
- 2.1.1.5 Know how to report problems or make suggestions for improvements

### 2.2 Microbiology (Multiplication and Survival Hazards)

2.2.1 Candidates must understand how micro-organisms pose a hazard to food safety and spoilage of food by being able to:

- 2.2.1.1 State what micro-organisms are and outline where they may be found

- (a) Define: bacteria, virus and mould
  - (b) Identify that there are different types of bacteria and know that they are not all harmful
  - (c) Know the common sources of food poisoning bacteria
- 2.2.1.2 Identify multiplication and survival hazards posed by pathogenic bacteria and know why it is important to control them
- (a) State the types of microbiological hazards
  - (b) State the main characteristics of food poisoning bacteria
  - (c) Identify the main factors which influence the multiplication of food poisoning bacteria
  - (d) Know the temperatures which support the most rapid multiplication of food poisoning bacteria and the range of the danger zone
  - (e) Have a basic understanding of the terms 'bacterial spore' and toxin
  - (f) Know why spores and toxins are formed and the consequences these may have for food safety
  - (g) Identify different food types and outline the microbiological hazards posed by each type. Give examples of raw food, high-risk foods, low-risk foods and ready-to-eat raw foods
  - (h) Identify methods of minimising and preventing bacterial multiplication and state how this can help to reduce the likelihood of food poisoning in a manufacturing operation
  - (i) Identify the methods used to destroy food poisoning bacteria in food in manufacturing operations
- 2.2.1.3 Recognise signs of food spoilage
- (a) Know that preventing the multiplication or destroying micro-organisms in food will preserve the food and extend shelf life in a manufacturing operation

### 2.3 Contamination Hazards and Controls

2.3.1 Candidates must understand the concept of food hazards caused by contamination of food by being able to:

2.3.1.1 State common causes of microbiological, physical, chemical and allergenic hazards in food manufacturing operations and how the risk from each can be controlled

(a) Know the meaning of the terms contamination, cross contamination and sources, routes and vehicles of contamination

(b) Identify the types of contamination hazards likely to be found in a manufacturing business and give examples of each type (microbiological, physical, chemical and allergenic)

(c) Give examples of common vehicles of contamination

(d) Give examples of how cross-contamination can occur and state why it is important to separate raw and ready-to-eat foods

(e) Give examples of how cross-contamination can be controlled in a manufacturing environment

(f) Give examples of how physical hazards can be controlled in a manufacturing environment

(g) Give examples of how chemical hazards can be controlled in a manufacturing environment

(h) Know that certain foods can cause allergic reactions and outline how to control the risk from allergens within a manufacturing environment

## 2.4 Food Poisoning and its Control

2.4.1 Candidates must know and understand the main reasons for food poisoning by being able to:

2.4.1.1 Identify the main characteristics of food related illness

(a) Define: duration, food poisoning, incubation/onset period and risk groups

(b) Know what food poisoning is and identify the main symptoms of food poisoning

- (c) Identify those most at risk from food poisoning
  - (d) Identify the main causes of food poisoning
  - (e) Know why some hazards are more important to control than others
  - (f) Outline that food contaminated with food poisoning organisms usually looks, smells and tastes completely normal and outline what to do if food spoilage is identified
- 2.4.1.2 State the main methods of preventing food poisoning in a manufacturing environment

## 2.5 HACCP from Delivery to Distribution

2.5.1 Candidates must understand how food safety procedures can prevent food borne illness and the contamination of food by being able to:

- 2.5.1.1 Recognise the responsibilities of food handlers and food businesses regarding HACCP
- 2.5.1.2 Know the meaning of the terms food safety management system, control measures, critical control point, critical limit, monitoring, corrective actions, verification
- 2.5.1.3 Have an awareness of the law regarding food safety management systems and temperature control
- 2.5.1.4 Know how to operate a food safety system and have an awareness of different food safety management systems which are available for manufacturing operations.

2.5.2 Describe hazards, control measures, monitoring and corrective actions associated with the delivery, storage, preparation, thawing, hot processing, cooling, freezing, packing, final storage and transportation of manufactured food products

- 2.5.2.1 Explain the importance of selecting reputable suppliers and identify controls to minimise the hazards from suppliers
- 2.5.2.2 Explain the importance of clear labelling of food
- 2.5.2.3 Know why food must be placed in the correct storage area and the temperatures required for different food

- 2.5.2.4 Outline why stock rotation procedures are important and know the difference between use by and best before date codes and explain why food past its code must be disposed of
- 2.5.2.5 Identify suitable temperatures and timescales for thawing, hot and cold processing, cooling, packing and final storage
- 2.5.2.6 Identify how to use thermometers and other measuring equipment correctly and outline how they can be validated for accuracy
- 2.5.2.7 Know the importance of documentation and give examples of records that may be kept
- 2.5.2.8 Explain the importance of having accurate and up to date records

## 2.6 Food Handlers and Personal Hygiene

- 2.6.1 Candidates must understand the importance of keeping themselves clean and hygienic by being able to:
  - 2.6.1.1 Recognise the principal legal responsibilities of food handlers regarding personal hygiene
  - 2.6.1.2 Identify the general principles of good personal hygiene and outline how to control hazards associated with poor personal hygiene
    - (a) Explain the basic rules to be observed with regard to personal hygiene, including having clean hair, skin, nails and clothing.
    - (b) Identify why food handling should be kept to a minimum
    - (c) Know that food handlers must be aware of hygiene hazards associated with their job and that training programmes should be implemented to ensure competency
  - 2.6.1.3 Outline how food handlers can be sources and vehicles of food poisoning bacteria and physical, chemical and allergenic contaminants
    - (a) Outline unhygienic practices and habits for food handlers that should be avoided

- 2.6.1.4 State when to wash hands and why it is important to wash hands correctly
- (a) Identify how to wash hands correctly
  - (b) State the important times when hands must be washed
  - (c) Outline the hand washing facilities that should be provided in a manufacturing operation
- 2.6.1.5 Outline how open wounds and skin complaints can contaminate food
- (a) Describe the importance of wearing appropriate wound dressings
  - (b) Identify why people with open wounds should not enter or work in food production areas
  - (c) Outline what to do if a food handler has an open wound
- 2.6.1.6 Identify suitable standards of dress and outline its importance for food handlers
- (a) Outline how wearing correct clothing can reduce the risk of contamination
  - (b) Give examples of protective clothing appropriate to the workers role
  - (c) State when protective clothing should be changed and explain why this is important
  - (d) State how jewellery and personal effects can cause a hazard
  - (e) Know why it is important to report illness and infections promptly
  - (f) Know what illnesses must be reported and identify what is meant by the term carrier
  - (g) State why persons who are, or are suspected of being 'carriers' of food borne illness may expose food to risk of contamination

## 2.7 Food Premises and Equipment

2.7.1 Candidates must be aware of their role in reducing risks of food contamination from premises and equipment including colour coding by being able to:

2.7.1.1 Recognise and report problems that could result in food contamination

(a) Know the meaning of the term 'workflow' and give examples of how this can be achieved

(b) Know the importance of using washing and cleaning facilities and equipment appropriately

2.7.1.2 Outline measures to ensure that equipment and surfaces do not result in food contamination

(a) Identify the hazards associated with damaged equipment and surfaces in a food production area and give examples of the types of damage that can cause food safety hazards

(b) Know what to do if damaged equipment or surfaces are identified in a food production area

2.7.1.3 Outline the types of waste found in food manufacturing and why it is important to clear and dispose of waste promptly

(a) Identify the hazards associated with incorrect waste control

(b) Know how to clear and dispose of waste safely

## 2.8 Food Pests and Control

2.8.1 Candidates must understand the need for food businesses to control pests and be able to:

2.8.1.1 Recognise the principal responsibilities of food handlers and food businesses regarding pest control

2.8.1.2 State the hazards that can be posed by food pests and their control and give reasons for controlling pests in a manufacturing operation

- (a) Outline what a food pest is and identify the main types of pests that may be found in food manufacturing operations
  - (b) Identify why food pests are a hazard to food safety and outline the role of the food handler in preventing the access and harbourage for pests, including control of deliveries, keeping doors and windows closed, placing lids on waste containers and reporting potential entry points
  - (c) Identify how inappropriate control measures can cause food safety hazards
- 2.8.1.3 Outline the main signs of a pest infestation, who to report signs of pests to and the actions that must be taken if pests are sighted in the workplace
- (a) Outline the role of the food handler in reporting signs of pests

## 2.9 Cleaning and Disinfection

- 2.9.1 Candidates must understand the importance of effective cleaning and disinfection in food manufacturing premises and be able to:
- 2.9.1.1 Recognise the principal responsibilities of food handlers regarding cleaning and disinfection of food manufacturing premises
  - 2.9.1.2 Know why food manufacturing premises and equipment must be clean
    - (a) State the reasons for cleaning
    - (b) Know the meaning of the terms cleaning, disinfection, sanitisation, sterilisation, sterilising, biodegradable and double sink washing and outline how each one can be achieved
    - (c) Know the importance of using the correct equipment, utensils and chemicals when cleaning and outline the hazards associated with poor cleaning
  - 2.9.1.3 Outline the importance of 'clean and clear as you go' and cleaning schedules
    - (a) Know why it is important to keep internal and external waste areas clean

- 2.9.1.4 Understand the uses of different cleaning chemicals
- 2.9.1.5 Identify typical areas in a food manufacturing operation that will require disinfecting or sanitising
  - (a) Outline safety precautions that should be considered when storing chemicals and cleaning and disinfecting work areas or equipment

## 2.10 Food Safety Enforcement

- 2.10.1 Candidates must have a general understanding of the need for enforcement and be able to:
  - 2.10.1.1 Identify a food handlers role when an enforcement officer visits a food premises
    - (a) Recognise that enforcement officers have powers of entry, and can take samples, photographs and interview all food handlers
    - (b) Identify the role of the enforcement officer with regard to providing advice, investigating complaints and improving food safety
  - 2.10.1.2 State the types of penalties that can be applied if a food business or food handler contravenes food safety legislation
    - (a) Recognise the penalties that can be applied to both food handlers and food business operators for non compliance with food safety legislation
    - (b) Identify how accurate written records can assist in a due diligence defence