

***The Royal Environmental Health
Institute of Scotland***



Intermediate Food Hygiene Course

Syllabus

Minimum teaching time – 20 hours

INTERMEDIATE FOOD HYGIENE COURSE SYLLABUS

All objectives to be prefixed by the words: The expected outcome is that the course participant is able to:

1.0 GENERAL INTRODUCTION

Aim To provide an understanding of the relationship between food hygiene, food poisoning and food spoilage, the socio-economic costs of poor food hygiene, and the role of HACCP and hazard analysis in ensuring food safety.

Objectives

- 1.1 Define the term: food hygiene.
- 1.2 Explain the moral, legal and financial benefits of high standards of food hygiene, including the role of HACCP and hazard analysis in maintaining high standards.
- 1.3 Describe employer's and employees' responsibilities.
- 1.4 Explain the cost of poor food hygiene in economic terms to the Country, employer, and in terms of inconvenience to employees and general public.
- 1.5 State the trends in food poisoning over the most recent 10 year period in Scotland.
- 1.6 Describe the foods most commonly involved in outbreaks of food poisoning.

2.0 BACTERIOLOGY

Aim To provide an understanding of the characteristics of bacteria and their potential to cause illness and spoil food.

Objectives

- 2.1 Define the terms: microorganism, pathogen.
- 2.2 Explain that food may be contaminated by pathogenic microorganisms and spoilage microorganisms (including moulds and yeasts).
- 2.3 Describe the structure, shape and size of a bacterium.
- 2.4 Explain that bacteria multiply by binary fission and state the average generation time in optimum conditions.
- 2.5 Describe the factors influencing bacterial multiplication.
- 2.6 Explain that bacteria can be killed by the application of adequate heat, irradiation and/or chemicals.
- 2.7 Describe the function of spores and their role in the survival of bacteria.
- 2.8 Describe bacterial toxin formation distinguishing between the common types of toxins, and explain how they can cause food poisoning.

3.0 BACTERIAL FOOD POISONING AND FOOD BORNE INFECTIONS

Aim To provide an understanding of the causes of, likely sources and food involved and control measures for bacterial food poisoning and food borne infections.

Objectives

- 3.1 Define the terms: food poisoning, gastroenteritis, healthy carrier, convalescent carrier, case, incubation/onset period.
- 3.2 Explain that food contaminated by food poisoning bacteria and the bacteria responsible for food borne infections tastes, smells and looks normal.
- 3.3 Describe the differences between bacterial food poisoning and food borne infection in terms of their effects and characteristics of their actions.
- 3.4 Describe the most common sources of bacterial food poisoning and pathogenic food borne organisms indicating how they enter the human food chain.
- 3.5 Explain the routes of transmission of these organisms from the source to the food.
- 3.6 Describe the mechanisms of control, which can be introduced throughout the food chain from farm to consumer, to ensure the minimum risk of bacterial food poisoning and food borne infection occurring.
- 3.7 Indicate the foods most likely to be associated with the following food poisoning and food borne infection micro-organisms, and describe briefly their characteristics:

Food Poisoning

Salmonella species
Clostridium perfringens
Staphylococcus aureus
Clostridium botulinum
Bacillus cereus

Food Borne Infection

Campylobacter species
Listeria species
E.coli O157
Norovirus
Other enteric illnesses such as Dysentery and Typhoid

4.0 NON- BACTERIAL FOOD POISONING

Aim To provide an understanding of the causes and effects of non-bacterial food poisoning.

Objectives

- 4.1 Explain that food poisoning can be caused by viruses, chemicals (including metals), mycotoxin producing moulds and by the consumption of poisonous plants and fish.

4.2 Provide an example of each of the above types of non-bacterial food poisoning.

5.0 FOOD CONTAMINATION AND ITS PREVENTION

Aim To provide an understanding of the potential for bacterial and physical contamination of food, and how such contamination may be prevented.

Objectives

- 5.1 Define the terms: contamination, cross contamination, high risk food.
- 5.2 Describe the main sources, vehicles and routes of bacterial contamination of food.
- 5.3 Describe the most common physical contaminants of food and the most likely sources of the contaminants.
- 5.4 Describe methods for prevention and control of cross contamination and state different sources of information and guidance on good practice eg FSA guidance on *E. coli* O157 Control of Cross contamination, good manufacturing practice, etc.
- 5.5 Explain how food may be contaminated by non-food personnel.
- 5.6 Describe effective procedures for the prevention, detection and identification of intrinsic and extrinsic contamination of food (including malicious contamination).
- 5.7 Define the terms food allergen, allergy and intolerance.
- 5.8 Describe the foods involved in food allergies and what steps a food business should take to prevent food allergens affecting the consumer and what information should be provided.
- 5.9 Describe the foods involved in food intolerances and what steps a food business should take to prevent food intolerances affecting the consumer.

6.0 PERSONAL HYGIENE

Aim To provide an understanding of the need for high standards of personal hygiene for food handlers.

Objectives

- 6.1 Explain the hazards presented by: boils, cuts, spots, skin infections, sneezing, coughing, smoking, eating, wearing jewellery and wearing nail varnish.
- 6.2 Explain the need for detectable waterproof dressings and suitable first aid equipment.
- 6.3 Explain when food handlers should wash and disinfect their hands and describe the correct method for hand washing.
- 6.4 Explain the need for, and describe the properties of, satisfactory protective overclothing.

- 6.5 Explain why persons working in a food handling area who is, or may be suffering from certain medical conditions, should be excluded from food handling duties.

7.0 FOOD STORAGE AND TEMPERATURE CONTROL

Aim To provide an understanding of the importance of providing and maintaining suitable conditions for the storage of food.

Objectives

- 7.1. Explain the importance of satisfactory storage to minimise the risk of contamination and decomposition.
- 7.2. State the temperatures necessary to control bacterial activity in food.
- 7.3. Explain why high-risk foods should be stored at appropriate temperatures.
- 7.4 Explain why the hygienic and efficient use of refrigerated storage units is dependent on attention to the following:
- (a) siting
 - (b) maintenance and cleaning (including defrosting)
 - (c) appropriate loading
 - (d) regular temperature checks
- 7.5 Explain the necessary controls for the use of frozen food (including thawing), which avoids contamination, and minimises bacterial growth.
- 7.6 Explain the necessity for cooling hot or cooked food rapidly if it is not to be stored above 63°C or it is not required for immediate consumption.
- 7.7 Explain the importance of stock rotation in regard to maintaining food safety.
- 7.8 Explain the meaning of the terms "use by" and "best before" particularly as used on food labels.

8.0 FOOD PRESERVATION

Aim To provide an understanding of the causes of food spoilage and the principles involved in its prevention.

Objectives

- 8.1 Explain that spoilage of food is mainly caused by bacteria and moulds.
- 8.2 Explain that spoilage microorganisms affect the appearance, smell, texture and taste of food.
- 8.3 Explain why suspect food should not be tasted.
- 8.4 Describe the basic principles involved in minimising the deterioration of food by the use of:
- (a) temperature (including cooking, canning, pasteurisation)
 - (b) dehydration, control of water availability
 - (c) chemicals (particularly salt and sugar)
 - (d) controlled atmosphere packaging and vacuum packing
 - (e) smoking

9.0 THE WORKING ENVIRONMENT

Aim To provide an understanding of the importance of satisfactory design, the use of suitable constructional materials, and proper maintenance of food premises, equipment and utensils.

Objectives

- 9.1 Explain the principles involved in the satisfactory design of food premises, equipment and utensils.
- 9.2 Explain the importance of the use of suitable materials for the construction of food premises, equipment and utensils.
- 9.3 Explain the importance of, and the necessity for, the satisfactory provision of lighting, ventilation and services, including water supply and drainage
- 9.4 Describe the main types of waste disposal system available for food premises.
- 9.5 Explain the importance of proper maintenance of food premises and equipment.
- 9.6 Explain how the Waste (Scotland) Regulations 2012 can impact food businesses.

10.0 CLEANING AND DISINFECTION

Aim To provide an understanding of the principles of, and the procedures for, satisfactory cleaning and disinfection of food premises, equipment and utensils.

Objectives

- 10.1 Define the terms: bactericide, cleaning, detergent, disinfectant, disinfection, bactericidal detergent/sanitizer, and sterilisation.
- 10.2 Explain the need for, and benefits of, cleaning and disinfection.
- 10.3 Explain that cleaning involves the systematic application of energy to remove dirt.
- 10.4 Describe the procedures and methods employed in cleaning and, when necessary, disinfecting premises, work surfaces, equipment and utensils.
- 10.5 Explain what a chemical disinfectant with British Standards BS and or EN accreditation e.g. BS EN 1276:1997 or BS EN 13697:2001 means in regard to destroying food pathogens.

11.0 COMMON FOOD PESTS AND THEIR CONTROL

Aim To provide an understanding of the habitats and characteristics of food pests and acceptable methods for their control.

Objectives

11.1 Define the term: food pest, and describe the hazards associated with food pests.

11.2 Describe the habitat, characteristics, food requirements, signs of infestation and reasons for control of the following:

- (a) rodents
- (b) birds
- (c) insects

11.3 Provide examples of the following methods of control for rodents, birds, and insects in and around food premises:

- (a) environmental control
- (b) physical control
- (c) chemical control

12.0 HACCP AND HAZARD ANALYSIS

Aim To provide an understanding of the rationale behind food safety management systems based on HACCP principles and the importance of the implementation of such a system to food businesses.

Objectives

12.1 Define the terms: HACCP and hazard analysis.

12.2 Describe the background to food hazard analysis systems.

12.3 Explain the rationale behind HACCP and hazard analysis in food business.

12.4 Describe, in general terms, hazards, controls, critical control points, monitoring, validation, recording and verification.

12.5 Explain the importance of implementation and maintenance of food hazard systems.

12.6 Outline the legal requirements with respect to food safety management systems based on HACCP principles.

13.0 SUPERVISORY MANAGEMENT

Aim To provide an understanding of the role and responsibilities of the management team in maintaining high standards of hygiene and preventing food poisoning.

Objectives

13.1 Describe the role of the management team in food safety.

- 13.2 Describe the responsibilities of the management team with regard to standards, food safety policies and quality assurance and control.
- 13.3 Describe the responsibilities of the management team with regard to auditing systems, inspecting premises and reporting findings.
- 13.4 Describe the responsibilities of the management team with regard to staff training and food safety management systems based on HACCP principles.

14.0 LEGISLATION

Aim To provide an understanding of the main requirements of the Food Safety Act 1990, and principal associated Regulations.

Objectives

- 14.1 Describe the main requirements of the Food Safety Act 1990 and the General Food Regulations 2004 with regard to the prevention of the sale of food injurious to health, unfit or substandard food.
- 14.2 Describe in general terms the main requirements of The Food Hygiene (Scotland) Regulations 2006 and Regulation (EC) No 852/2004.
- 14.3 Describe in general terms, the main requirements of the regulations with regard to “approved premises”.
- 14.4 Explain the links between the Local Authority, Scottish Government, Health Boards and Food Standards Scotland.
- 14.5 Describe briefly the role and powers of Environmental Health Officers and other Food Enforcement Officers, set out in the Food Safety Act 1990, and the Food Hygiene (Scotland) Regulations 2006.
- 14.6 Describe in general terms the EU Consumer Information for Consumer Regulation 1169/2011, Food Information Regulations 2014.

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