

Food Science 12

Specific Curriculum Outcomes

Students will be expected to

Food Constituents (25%)

FOOD CONSTITUENTS

- 1.1 identify and describe science- and technology-based careers related to food science
- 1.2 analyze a food package ingredient listing

CARBOHYDRATES

- 1.3 explain and describe the function/properties of other starches, including carbohydrates and cellulose, pectins, and gums

LIPIDS

- 1.4 identify and describe the properties and functions of lipids

PROTEINS

- 1.5 describe the structure of proteins found in various foods, including essential amino acids

WATER AND OTHER CONSTITUENTS IN FOOD

- 1.6 summarize the functions of water in food preparation and food development
- 1.7 explain the functions and basic properties of emulsifiers, organic acids, vitamins, enzymes, antioxidants, colour, and flavour
- 1.8 design an experiment, identify specific variables, and perform it

Preservation Factors (25%)

FOOD MICROBIOLOGY AND FOOD SAFETY: FERMENTATION MICROBIOLOGY

- 2.1 explain how the metabolism of microorganisms introduce new desirable flavours, ingredients, and physical properties to the foods

FOOD MICROBIOLOGY AND FOOD SAFETY: PRESERVATION MICROBIOLOGY

- 2.2 explain food spoilage in terms of the growth of microorganisms (appearance of off-flavours, off-odours, slime, visible growth)
- 2.3 describe the role that processing and food additives play in eliminating, inhibiting, or delaying the growth of spoilage microorganisms

FOOD MICROBIOLOGY AND FOOD SAFETY: FOOD SAFETY MICROBIOLOGY

- 2.4 explain simple measures that can be taken to keep foods safe
- 2.5 explain how viruses, bacteria, moulds, and parasites can cause disease

EVOLUTION OF FOOD PRESERVATION

- 2.6 explain practical methods of food preservation

COOLING

- 2.7 explain the use of chilling and cold storage of fresh foods in terms of preservation

HEATING

- 2.8 identify and give examples of the different types of high temperature cooking

FERMENTATION

- 2.9 describe the fermentation process and make a fermented product

DRYING PROCESSING TECHNIQUES

- 2.10 explain what water activity is, why it is important, and how it can be controlled

Food Quality and Commodities (25%)**FOOD COMMODITIES**

- 3.1 analyze the properties of specific food commodities
- 3.2 select and use different resources and materials to collect information about their commodity
- 3.3 devise and conduct an experiment on their commodity

FOOD QUALITY

- 3.4 identify psychological factors used to market and develop food products
- 3.5 collect and compare sensory data

PRODUCT DEVELOPMENT—SCHEMES AND STAGES

- 3.6 explain how well a product is designed to meet consumer wishes

Food Packaging (25%)**FOOD PACKAGING AND FOOD LABELS**

- 4.1 explain the functions and considerations for food packaging
- 4.2 identify and explain the information required for labels on food products made in Canada

NEW FOOD PRODUCT

- 4.3 design, develop, make, and present a food product identifying and anticipating major variables that may impact on the final quality of the product

Food Studies and Hospitality 12

Learning Outcomes

Students will be expected to

1. demonstrate knowledge of safety and sanitation procedures within the professional food service operation
2. understand and apply literacy and numeracy skills to professional food service operations
3. describe and apply their knowledge to the basic operation of a professional kitchen
4. demonstrate basic skills in food and beverage service
5. compare and contrast cooking methods as applied to various foods
6. recognize and apply the principles of good menu planning
7. research and relate to developments and/or trends in the food service industry
8. identify the life-work benefits of developing skills in food production

Specific Curriculum Outcomes

Students will be expected to

Unit 1: Food and Kitchen Safety

- 1.1 complete basic certification in first aid, food handling, and WHMIS
- 1.2 demonstrate safe work methods and proficiency in operating standard tools and equipment within a professional food service operation
- 1.3 develop teamwork skills within the food service operation
- 1.4 model and maintain professional deportment and personal hygiene while working in a food service operation
- 1.5 demonstrate an understanding of food intolerances in food preparation and service

Unit 2: Kitchen Literacy and Numeracy

- 2.1 interpret, modify, and convert recipes
- 2.2 accurately use proper terminology and techniques when performing food measurement and conversions
- 2.3 have a basic knowledge of the cost of food as it relates to the recipe

Unit 3: Professional Kitchen Organization

- 3.1 identify the various types of professional kitchen organizations and how they operate
- 3.2 effectively operate, maintain, and store kitchen tools and equipment

Unit 4: Food and Beverage Service

- 4.1 recognize the connection between the production and service of food
- 4.2 identify and demonstrate different types of table settings and service
- 4.3 respond to customer needs in a professional manner
- 4.4 recognize the importance of menu knowledge
- 4.5 practise skills related to customer service

Unit 5: Fundamentals of Cooking

- 5.1 recognize and use kitchen staples and ingredients
- 5.2 demonstrate time and resource management skills
- 5.3 demonstrate basic food preparation skills
- 5.4 demonstrate an understanding of the basic principles of cooking food
- 5.5 choose and apply appropriate cooking methods to various types of food
- 5.6 identify and practise healthy methods of food preparation
- 5.7 participate in sensory evaluation of food

Unit 6: Menu Planning

- 6.1 identify different types of food service establishments and their corresponding menus
- 6.2 recognize the relationship between target clientele and menu offerings
- 6.3 recognize the factors that affect the selection of menu items

Unit 7: Food for Thought

- 7.1 reflect on the factors that affect change in the food industry
- 7.2 demonstrate their knowledge of a food trend/development through research and presentation

Unit 8: Work Experience / Job Shadow / Co-operative Education

- 8.1 participate in a work placement in the food hospitality industry
- 8.2 participate in career exploration activities related to the food hospitality industry
- 8.3 complete the appropriate reporting documents for their work placement as required by Department of Education *Community-Based Learning Policy*