



8791

COOKING PRINCIPLES (10)

20S/20E/20M

A Culinary Arts Course

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Course Description

This course is intended for students wishing to pursue the Culinary Arts. Curriculum content focuses on an introduction to the Culinary Arts. The emphasis is on hands-on activities. Students learn the specifics of sanitation and safety in a commercial kitchen. They also learn about tools and equipment, knife handling and safety, and general preparation procedures for different types of food and beverage. The course provides information and practical experience on the effects of heat on food; setting up workstations; cooking terms and methods; principles for seasoning and flavouring; and how to read and follow recipes. Students will practice measurement and scaling techniques.

Goal 1: Describe and apply appropriate **sanitation, health, and safety** practices as they relate to the culinary arts.

GLO 1.1: Demonstrate appropriate **personal hygiene** practices.

- SLO 10.1.1.1: Define terminology associated with personal hygiene and hygienic practices. (A7.1)
 - SLO 10.1.1.2: Describe the procedures used for handwashing. (A7.10)
 - SLO 10.1.1.3: Practise personal hygiene and safe health standards.
 - SLO 10.1.1.4: Adhere to the professional standards of dress, hygiene, and grooming.
 - SLO 10.1.1.5: Identify and interpret codes, regulations, and federal, provincial/territorial, municipal requirements pertaining to kitchen sanitation and safe food-handling practices. (A7.2)
 - SLO 10.1.1.6: Describe the procedures used to ensure personal hygiene and clean apparel. (A7.9)
 - SLO 10.1.1.7: Identify and interpret food health regulations and guidelines associated with the practice of personal hygiene. (A7.7)
 - SLO 10.1.1.8: Identify and interpret regulations and guidelines associated with wearing personal items. (A7.8)
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GLO 1.2: Demonstrate safe **food-handling** practices.

- SLO 10.1.2.1: Demonstrate safe food-handling practices.
 - SLO 10.1.2.2: Identify common food allergies and determine appropriate substitutions.
 - SLO 10.1.2.3: Describe the safe storage of stock equipment in service vehicles. (A3.11)
 - SLO 10.1.2.4: Identify types of food-borne illnesses, their causes, and preventative measures. (A7.11)
 - SLO 10.1.2.5: Identify types of food contamination, their causes, and preventative measures. (A7.12)
 - SLO 10.1.2.6: Identify proper food-handling and storage techniques. (A7.13)
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GLO 1.3: Create and maintain a **safe and sanitary work environment**.

- SLO 10.1.3.1: Create and maintain a safe work environment in the kitchen lab.
- SLO 10.1.3.2: Identify regulations pertinent to care and cleanliness in the work area. (A3.3)
- SLO 10.1.3.3: Identify regulations relevant to the safe use of chemicals. (A3.4)
- SLO 10.1.3.4: Identify ergonomics. (A3.5)
- SLO 10.1.3.5: Identify, recognize, and control hazards. (A3.6, A3.10)
- SLO 10.1.3.6: Identify the hazards associated with working in a confined space and the preparation required to work safely in a confined space. (A3.7) (TSA 20)
- SLO 10.1.3.7: Describe safety practices and precautions related to the use of kitchen tools and equipment. (A6.2)
- SLO 10.1.3.8: Describe the importance of emergency planning procedures.
- SLO 10.1.3.9: Describe and follow substance abuse regulations.
- SLO 10.1.3.10: Identify and outline workplace fire safety principles. (A3.8) (TSA 19)
- SLO 10.1.3.11: Discuss the role of Workplace Safety and Health, and the procedures to follow in case of an incident (e.g., slips and falls, improper lifting, etc.).
- SLO 10.1.3.12: Describe the principles of the Workplace Hazardous Materials Information System (WHMIS) and identify the safety requirements as they apply to the culinary arts. (A3.9)
- SLO 10.1.3.13: Describe how the Workers Compensation Act relates to the profession of chef.
- SLO 10.1.3.14: Describe procedures for dealing with burns and cuts.

- SLO 10.1.3.15: Identify the safety principles for working on and around electrical equipment. (A3.6) (TSA 18)
 - SLO 10.1.3.16: Describe the three government levels of food/health inspection and the area each level controls.
 - SLO 10.1.3.17: Describe the Hazard Analysis Critical Control Points (HACCP) System and its use in food-service operations. (A7.14)
 - SLO 10.1.3.18: Demonstrate proper kitchen sanitation, personal hygiene, and food-handling and storage practices. (A7.15)
 - SLO 10.1.3.19: Identify safety and health requirements. (A3.1)
 - SLO 10.1.3.20: Describe and use appropriate personal protective equipment (PPE) (e.g., gloves, safety glasses or goggles, hearing protection, respirator mask) and identify PPE and procedures related to PPE. (A3.2) (TSA 16)
 - SLO 10.1.3.21: Demonstrate knowledge of safety equipment such as fire extinguisher, first aid kit, and eyewash station. (A3.8)
 - SLO 10.1.3.22: Identify sanitizing products and describe their applications and procedures for use. (A7.3)
 - SLO 10.1.3.23: Describe the three-sink method of sanitization. (A7.4)
 - SLO 10.1.3.24: Describe the procedures used to disassemble and assemble kitchen tools and equipment and their accessories for sanitizing purposes. (A7.5)
 - SLO 10.1.3.25: Describe the procedures used to maintain a sanitary food-service operation. (A7.6)
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GLO 1.4: Demonstrate knowledge of the **Trade Safety Awareness Manual** (<www.gov.mb.ca/tce/apprent/apprentice/trade_safety/>).

- SLO 10.1.4.1: Explain the importance of trade safety and health in reducing injuries and fatalities to young employees in Manitoba. (TSA 1)
- SLO 10.1.4.2: Describe the rights and responsibilities of employees, employers, and supervisors under the Workplace Safety and Health Act. (TSA 2)
- SLO 10.1.4.3: Describe the steps to use in the Right to Refuse process. (TSA 3)
- SLO 10.1.4.4: Explain how and where to find information on workplace safety and health. (TSA 4)
- SLO 10.1.4.5: Demonstrate how to handle a potentially dangerous work situation. (TSA 5)
- SLO 10.1.4.6: Explain the S.A.F.E. acronym. (TSA 6)
- SLO 10.1.4.7: Define workplace safety and health hazards. (TSA 7)

- SLO 10.1.4.8: Give examples of trade-specific workplace safety and health hazards. (TSA 8)
- SLO 10.1.4.9: Give examples of five types of safety and health hazards. (TSA 9)
- SLO 10.1.4.10: Define workplace safety and health risks. (TSA 10)
- SLO 10.1.4.11: Give examples of trade-specific workplace safety and health risks. (TSA 11)
- SLO 10.1.4.12: Explain the principles of hazard recognition and control as they apply to the specific trade. (TSA 12)
- SLO 10.1.4.13: Match the WHMIS hazardous materials symbols and their meanings. (TSA 14)
- SLO 10.1.4.14: Describe the importance of the Material Safety Data Sheets (MSDS). (TSA 15)
- SLO 10.1.4.15: Demonstrate proper selection and use of a variety of personal protective equipment and fall-protection systems. (TSA 17)

Goal 2: Demonstrate the safe and appropriate **operation, cleaning, and maintenance of kitchen equipment and cooking utensils.**

GLO 2.1: Demonstrate the safe and appropriate **operation, cleaning, and maintenance of kitchen equipment and cooking utensils.**

- SLO 10.2.1.1: Identify and demonstrate the safe and appropriate operation and/or use of kitchen equipment, containers, and cooking utensils used in the preparation of food and beverage.
- SLO 10.2.1.2: Demonstrate the safe and appropriate cleaning and maintenance of kitchen equipment and cooking utensils.
- SLO 10.2.1.3: Define terminology associated with kitchen tools and equipment. (A6.1)
- SLO 10.2.1.4: Identify types of knives and describe their characteristics, applications, and procedures for use. (A6.3)
- SLO 10.2.1.5: Identify the tools used to sharpen and hone knives, and describe their applications and procedures for use. (A6.4)
- SLO 10.2.1.6: Describe the procedures used to inspect and store knives. (A6.5)
- SLO 10.2.1.7: Demonstrate the safe and appropriate use of knives.
- SLO 10.2.1.8: Identify types of pots and pans, and describe their characteristics, applications, and procedures for use. (A6.6)
- SLO 10.2.1.9: Describe the procedures used to inspect and store pots and pans. (A6.7)

- SLO 10.2.1.10: Identify types of utensils and describe their characteristics, applications, and procedures for use. (A6.8)
 - SLO 10.2.1.11: Describe the procedures used to inspect and store utensils. (A6.9)
 - SLO 10.2.1.12: Identify types of equipment and appliances, and describe their accessories, applications, and procedures for use. (A6.10)
 - SLO 10.2.1.13: Describe the procedures used to inspect, maintain, and store equipment and appliances. (A6.11)
 - SLO 10.2.1.14: Demonstrate proper use of kitchen tools and equipment and their maintenance and procedures for use. (A6.12)
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Goal 3: Demonstrate the appropriate **receiving, handling, quality assurance, storage, pre-preparation, preparation, and presentation** of different types of food and beverage.

GLO 3.1: Demonstrate the appropriate **receiving, handling, quality assurance, and storage** of different types of food and beverage.

- SLO 10.3.1.1: Demonstrate the procedures used to receive, inspect, handle, and store different types of food and beverage. (A11.3, A11.7)
 - SLO 10.3.1.2: Define terminology associated with receipt, inspection, and storage of goods. (A11.1)
 - SLO 10.3.1.3: Identify types of food storage and describe their applications. (A11.4)
 - SLO 10.3.1.4: Describe the procedures used to label, date, initial, and rotate stock. (A11.5)
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GLO 3.2: Demonstrate the appropriate **pre-preparation (mise en place), preparation, and presentation** of different types of food and beverage.

- SLO 10.3.2.1: Prepare dishes using a variety of herbs, spices, nuts, oils, vinegars, and condiments.
- SLO 10.3.2.2: Describe and perform mise en place.
- SLO 10.3.2.3: Describe presentation procedures for different types of food and beverage.
- SLO 10.3.2.4: Prepare a variety of dishes.
- SLO 10.3.2.5: Identify methods used to check for doneness of foods and describe their associated procedures. (A9.5)
- SLO 10.3.2.6: Identify methods used to take temperatures of food products and describe their associated procedures. (A9.7)

- SLO 10.3.2.7: Identify food quality indicators and testing techniques, and describe their associated procedures. (A9.8)
- SLO 10.3.2.8: Identify basic kitchen practices and describe their applications. (A9.9)
- SLO 10.3.2.9: Describe the procedures used to plan workspace and mise en place. (A9.11)
- SLO 10.3.2.10: Determine the doneness of prepared foods.
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Goal 4: Demonstrate an understanding of **food, ingredients, recipes, menus, food costing, and nutrition.**

GLO 4.1: Demonstrate an understanding of **the characteristics of foods and ingredients, and how these characteristics are used to prepare food, and design recipes and menus.**

- SLO 10.4.1.1: Explain three ways of heat transfer. (A9.3)
- SLO 10.4.1.2: Define terminology associated with basic cooking principles. (A9.1)
- SLO 10.4.1.3: Identify and select the ingredients used in the preparation of various dishes.
- SLO 10.4.1.4: Differentiate between seasoning and flavouring, and their application.
- SLO 10.4.1.5: Describe taste.
- SLO 10.4.1.6: Identify types of seasonings and flavourings used to enhance foods, and describe their characteristics, applications, and procedures for use. (A9.6)
- SLO 10.4.1.7: Describe how to use herbs and spices in cooking.
- SLO 10.4.1.8: Determine the factors to consider when identifying and selecting ingredients for various dishes.
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GLO 4.2: Demonstrate an understanding of **recipes, menus, and food costing.**

- SLO 10.4.2.1: Demonstrate the procedure used to read and follow recipes. (A8.3)
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GLO 4.3: Demonstrate an understanding of **nutrition.**

No applicable SLOs.

Goal 5: Apply the transferable, **cross-curricular** knowledge and skills, as they relate to the culinary arts (chemistry, English language arts, food science, French, nutrition, mathematics, etc.).

GLO 5.1: Read, interpret, and communicate information.

- SLO 10.5.1.1: Read, interpret, and communicate manufacturers' directions, recipes, menus, labels, invoices, orders from customers, and so forth.
 - SLO 10.5.1.2: Identify effective communication practices. (A4.1)
 - SLO 10.5.1.3: Identify the types of communication methods and equipment, and describe their applications. (A4.2)
 - SLO 10.5.1.4: Describe the importance of effective verbal, non-verbal, and written communication with customers, suppliers, and employees. (A4.3)
 - SLO 10.5.1.5: Communicate effectively using verbal and non-verbal techniques. (A4.4)
 - SLO 10.5.1.6: Demonstrate effective communication principles. (A4.5)
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GLO 5.2: Apply mathematics knowledge and skills relevant to the culinary arts.

- SLO 10.5.2.1: Perform basic math functions.
 - SLO 10.5.2.2: Demonstrate the proficient use of fractions, ratios, decimals, and percentages.
 - SLO 10.5.2.3: Demonstrate the proficient conversion between the metric and standard (or imperial) systems of measurement.
 - SLO 10.5.2.4: Define terminology associated with systems of measurement. (A8.1)
 - SLO 10.5.2.5: Identify measuring systems and their abbreviations. (A8.2)
 - SLO 10.5.2.6: Demonstrate proper scaling and measurement techniques.
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GLO 5.3: Apply chemistry knowledge and skills relevant to the culinary arts.

- SLO 10.5.3.1: Describe the chemical process of cooking. (A9.2)
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Goal 6: Demonstrate awareness of **sustainability** as it pertains to the culinary arts.

GLO 6.1: Describe the culinary arts industry's **sustainability** practices and impact on the environment.

- SLO 10.6.1.1: Identify the waste produced in a culinary arts facility.
- SLO 10.6.1.2: Demonstrate the disposal and recycling of waste.
- SLO 10.6.1.3: Rotate stock in a way to minimize waste (e.g., FIFO—the first one in is the first one out).
- SLO 10.6.1.4: Identify and locate facilities for recycling and waste disposal.
- SLO 10.6.1.5: Describe the steps to set up a composting program.
- SLO 10.6.1.6: Describe how to reduce the usage of energy, waste, and water.
- SLO 10.6.1.7: Discuss the use of sustainable food containers.

Goal 7: Demonstrate awareness of the **ethical and legal standards** that pertain to the culinary arts.

GLO 7.1: Identify and follow the **ethical and legal standards** that pertain to the culinary arts.

- SLO 10.7.1.1: Discuss ethical and legal standards in the culinary arts.

Goal 8: Demonstrate the **employability skills** required in the culinary arts.

GLO 8.1: Demonstrate fundamental **employability skills**.

- SLO 10.8.1.1: Demonstrate employability skills (e.g., being prepared for work on time, setting up workstations, staying on task, accepting responsibility for their actions, and so on).
 - SLO 10.8.1.2: Demonstrate professional dress code.
 - SLO 10.8.1.3: Demonstrate the skills required to work as a member of a team.
 - SLO 10.8.1.4: Demonstrate initiative in performing tasks.
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Goal 9: Demonstrate an understanding of **working conditions and career opportunities** in the culinary arts.

GLO 9.1: Demonstrate an understanding of **working conditions and career opportunities** in the culinary arts.

- SLO 10.9.1.1: Describe the structure and scope of the culinary arts. (A1.1)
- SLO 10.9.1.2: Describe the Manitoba Cook Apprenticeship Program. (A1.2)
- SLO 10.9.1.3: Describe special opportunities and challenges (e.g., Skilled Labour Training). (A1.3)
- SLO 10.9.1.4: Identify professional development opportunities in the culinary arts industry.
- SLO 10.9.1.5: Identify and locate different facilities, departments, and services.
- SLO 10.9.1.6: Discuss working conditions and employment standards in the culinary arts.

Goal 10: Demonstrate an understanding of the **evolution and technological progression of, and the emerging trends in** the culinary arts.

GLO 10.1: Demonstrate an understanding of the **evolution and technical progression of, and the emerging trends in** the culinary arts.

- SLO 10.10.1.1: Describe the history and evolution of professional cooking.
 - SLO 10.10.1.2: Demonstrate an appreciation for traditional culinary arts processes and equipment.
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