



8791

COOKING PRINCIPLES (10)

20S/20E/20M

A Culinary Arts Course

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Course Description

This course 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: Demonstrate an understanding of, and adherence to, **safety, personal hygiene, sanitation, and food safety procedures.**

GLO 1.1: Demonstrate an understanding of, and adherence to, **safety, personal hygiene, and sanitation** practices.

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| SLO 10.1.1.1 | Describe and adhere to professional standards of dress, personal hygiene, and grooming. |
| SLO 10.1.1.2 | Create and maintain a safe and sanitary work environment. |
| SLO 10.1.1.3 | Demonstrate an understanding of emergency procedures. |
| SLO 10.1.1.4 | Identify personal protective equipment (PPE) and procedures. (A2.2) <ul style="list-style-type: none">■ employer and employee responsibilities as related to personal protective equipment■ standards: ANSI (U.S.A. standards), etc.■ work protective clothing and danger if it fits poorly■ gloves—importance of proper glove selection (when handling chemicals, cold items, slivers, etc.)■ headwear—appropriate protective headwear when required and the approved type of headwear■ eye protection—comparison and distinction of everyday eyeglasses, industrial safety glasses, and safety goggles■ foot protection—when required according to safety standards |

- hearing protection
 - hazards of various noise levels (hearing protection must be worn)
 - laws
 - types of hearing protection
 - respiratory protection—types, overview of proper selection
 - fall protection—Manitoba requirements standards guidelines
 - ANSI (U.S.A. standards), etc.
- SLO 10.1.1.5 Identify ergonomics. (A2.5)
- definition of ergonomics and conditions that may affect the body
 - working postures
 - repetition
 - force
 - lifting
 - tools
 - identify tool and safety equipment
 - causes of hand tool accidents
 - equipment
- SLO 10.1.1.6 Recognize and control hazards. (A2.6)
- safe work practices
 - basic risk assessment
 - injury prevention and control measures
 - identification of hazards involved in pneumatic tool use and explanation of how to guard against them
 - refrigerants
 - toxic chemical (non-refrigerant)
 - high pressure fluids
- SLO 10.1.1.7 Identify the safety requirements as they apply to WHMIS. (A2.9)
- WHMIS is a system
 - provincial regulation under the *Safety and Health Act*
 - Each province has a WHMIS regulation
 - federal *Hazardous Products Act*
 - WHMIS generic training:

- WHMIS defined and the format used to convey information about hazardous materials in the workplace
- information found on supplier and workplace labeling using WHMIS
- hazardous materials in accordance with WHMIS
- compliance with government safety standards and regulations
- description of WHMIS (include varieties of WHMIS Certification)
 - typology of WHMIS labels, symbols, and classifications
 - scope and use of Materials Safety Data Sheets (MSDS)

SLO 9.1.3.8 Identify and control hazards. (A2.10)

- basic control measures (injury prevention)
- safe work procedures
- explanation on the importance of industrial housekeeping
- employer responsibilities
- how and where to store materials
- safety measures related to walkways, stairs, and floor openings
- explanation of how to protect the worker and others when working in traffic paths

GLO 1.2: Demonstrate an understanding of, and adherence to, **food safety** procedures.

A3 Food Safety Procedures (7 hours)

SLO 10.1.2.1 Define terminology associated with personal hygiene and hygienic practices. (A3.1)

SLO 10.1.2.2 Identify and interpret codes, public health regulations, and jurisdictional requirements pertaining to kitchen sanitation and safe food handling practices. (A3.2)

SLO 10.1.2.3 Identify sanitizing products and describe their applications and procedures for use. (A3.3)

SLO 10.1.2.4 Describe the procedures used to disassemble and assemble kitchen tools, equipment, and their accessories for sanitizing purposes. (A3.4)

- SLO 10.1.2.5 Describe the procedures used to maintain a sanitary food service operation. (A3.5)
- clean, sanitize, and sterilize
 - three sink method of sanitization
 - manage waste and recycle
 - control pests and rodents
 - prevent cross contamination
 - hand washing
 - personal hygiene and clean apparel
 - Hazard Analysis Critical Control Points (HACCP) system and its use in food service operations.
- SLO 10.1.2.6 Interpret jurisdictional regulations and company guidelines associated with wearing personal items. (A3.6)
- fragrances
 - hair restraints
 - jewelry
 - nail polish
- SLO 10.1.2.7 Identify proper food handling and storage techniques. (A3.7)
- cleanliness
 - preventing cross-contamination
 - maintaining foods at safe temperatures
 - receiving and storing foods (first in, first out—FIFO)
 - food-borne illnesses and contamination, their causes and prevention
 - chemical
 - biological
 - physical
- SLO 10.1.2.8 Demonstrate proper kitchen sanitation, personal hygiene, and food handling and storage practices. (A3.8)
- cleanliness
 - preventing cross-contamination
 - maintaining foods at safe temperatures
- SLO 10.1.2.9 Demonstrate an understanding of food allergies and intolerances.
- SLO 10.1.2.10 Identify and eliminate hazards associated with food allergies and intolerances.

Goal 2: Demonstrate an understanding of kitchen **tools** and **equipment**, along with their **use, cleaning,** and **maintenance.**

GLO 2.1: Demonstrate an understanding of kitchen **tools** and **equipment**, along with their **use, cleaning,** and **maintenance.**

- SLO 10.2.1.1 Demonstrate an understanding of kitchen tools and equipment.
- SLO 10.2.1.2 Demonstrate the use, cleaning, and maintenance of kitchen tools and equipment.
- SLO 10.2.1.3 Demonstrate the knowledge and skills required to make a variety of classical knife cuts.

A5 Tools and Equipment (14 hours)

- SLO 10.2.1.4 Define terminology associated with kitchen tools and equipment. (A5.1)
- SLO 10.2.1.5 Describe safety practices and precautions related to the use of kitchen tools and equipment. (A5.2)
- SLO 10.2.1.6 Describe and identify knives and their functions, care, and use. (A5.3)
 - types
 - characteristics
 - applications
 - procedures for use
 - maintenance
 - inspection
 - storage
 - sharpening
- SLO 10.2.1.7 Describe and identify pots and pans and their function, care, and use. (A5.4)
 - types
 - characteristics
 - applications
 - procedures for use
 - maintenance
 - inspection
 - storage

- SLO 10.2.1.8 Describe and identify equipment and utensils and their function, care, and use. (A5.5)
- types
 - characteristics
 - applications
 - procedures for use
 - maintenance
 - inspection
 - storage
- SLO 10.2.1.9 Demonstrate the proper use of kitchen tools and equipment and their maintenance and procedures for use. (A5.6)
- knives
 - pots and pans
 - equipment and utensils
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Goal 3: Demonstrate the **receiving, handling, quality assurance,** and **storage** of different types of food and beverages.

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

- SLO 10.3.1.1 Demonstrate the receiving, handling, quality assurance, and storage of different types of food and beverages.
- SLO 10.3.1.2 Define terminology associated with receipt, inspection, and storage of goods. (A7.1)
- SLO 10.3.1.3 Describe the procedures used to confirm information contained on invoices. (A7.2)
- purchase specifications
- SLO 10.3.1.4 Describe and demonstrate food storage procedures and their applications. (A7.3)
- frozen
 - refrigerated
 - dry storage
 - labeling
 - date
 - initial
 - rotate stock (FIFO)

- SLO 10.3.1.5 Identify and describe types of goods and the procedures used to receive, inspect, and store them. (A7.4)
- dairy
 - produce
 - meats
 - poultry
 - seafood
 - dry goods
 - non-food items
 - chemicals
- SLO 10.3.1.6 Perform the procedures used to receive, inspect, and store goods. (A7.6)
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Goal 4: Demonstrate the **pre-preparation** (mise en place), **preparation**, and **presentation** of different types of food and beverage.

GLO 4.1: Demonstrate the **pre-preparation** (mise en place), **preparation**, and **presentation** of different types of food and beverage.

- SLO 10.4.1.1 Define terminology associated with basic planning principles for cooking. (A8.1)
- workspace planning and safety
 - mise en place
- SLO 10.4.1.2 Explain the principles of heat transfer. (A8.2)
- conduction
 - convection
 - radiation
 - induction
 - chemical process of cooking
- SLO 10.4.1.3 Describe and demonstrate methods used to cook foods and describe their associated procedures. (A8.3)
- dry
 - moist
 - combination

SLO 10.4.1.4	Describe and demonstrate methods used to check for doneness of foods and describe their associated procedures. (A8.4)
	<ul style="list-style-type: none"> ■ probe thermometer ■ visual inspection
SLO 10.4.1.5	Identify methods of flavour enhancement and their applications. (A8.5)
	<ul style="list-style-type: none"> ■ seasonings ■ flavourings
SLO 10.4.1.6	Identify basic kitchen practices, food quality indicators, and finishing techniques. (A8.6)
	<ul style="list-style-type: none"> ■ finishing techniques ■ holding foods ■ plating techniques ■ re-thermalization ■ food quality indicators <ul style="list-style-type: none"> – visual inspection – tasting ■ finishing techniques <ul style="list-style-type: none"> – plating – presentation
SLO 10.4.1.7	Demonstrate the skills required to evaluate the doneness of food items.
SLO 10.4.1.8	Differentiate between seasoning and flavouring, and determine which to use with particular food items.
SLO 10.4.1.9	Demonstrate an understanding of culinary terms.
SLO 10.4.1.10	Demonstrate an understanding of presentation procedures for different types of food.

Goal 5: Demonstrate an understanding of **food, ingredients, recipes, menus, food costing, and nutrition.**

GLO 5.1: Demonstrate an understanding of the **characteristics of foods and ingredients**, and how knowledge of these characteristics is taken into consideration in preparing food, and designing recipes and menus.

- SLO 10.5.1.1 Demonstrate an awareness of the characteristics of various food items and ingredients.
 - SLO 10.5.1.2 Demonstrate an understanding of the factors to consider when identifying and selecting ingredients for various dishes.
 - SLO 10.5.1.3 Demonstrate an understanding of taste and the different flavours.
 - SLO 10.5.1.4 Demonstrate an awareness of types of seasonings and flavourings, and describe their characteristics, applications, and procedures for use.
 - SLO 10.5.1.5 Demonstrate an understanding of the most effectively used herbs and spices.
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GLO 5.2: Demonstrate an understanding of **recipes, menus, and food costing.**

No applicable SLOs.

GLO 5.3: Demonstrate an understanding of **nutrition.**

- SLO 10.5.3.1 Demonstrate an awareness of Canada's Food Guide and its place in menu planning.
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Goal 6: Apply the transferable, **cross-curricular** knowledge and skills, as they relate to the culinary arts (literacy, numeracy, the arts, the sciences, etc.).

GLO 6.1: Apply the transferrable **literacy** cross-curricular knowledge and skills to the culinary arts.

- SLO 10.6.1.1 Demonstrate knowledge and skills in literacy by reading, interpreting, communicating, and applying information.
 - SLO 10.6.1.2 Describe and demonstrate the importance of effective verbal, non-verbal, and written communication. (A4.3)
 - customers
 - co-workers
 - suppliers
 - journeypersons/apprentices
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GLO 6.2: Apply the transferrable **numeracy** cross-curricular knowledge and skills to the culinary arts.

- SLO 10.6.2.1 Demonstrate numeracy knowledge and skills by solving mathematical problems.
- SLO 10.6.2.2 Demonstrate the ability to work with fractions, ratios, decimals, and percentages, and to convert between units of measurement [such as metric and standard (imperial)].
- SLO 10.6.2.3 Define the terminology associated with systems of measurement and their abbreviations. (A6.1)
- SLO 10.6.2.4 Describe general math concepts and use of electronic calculators. (A6.2)
- basic operations
 - addition
 - subtraction
 - multiplication
 - division
 - fractions and decimals
 - percentage calculations
 - constructing/solving simple equations
 - units of measure
 - imperial
 - metric (SI)
 - conversion factors
- SLO 10.6.2.5 Describe and demonstrate the procedures used to read and follow recipes. (Adjust recipe yields; Recipe conversions; Calculations and formulas) (A6.3)
- adjust recipe yields
 - recipe conversions
 - calculations and formulas
 - cost control implications

GLO 6.3: Apply the transferrable cross-curricular knowledge and skills from **the arts** to the culinary arts.

- SLO 10.6.3.1 Demonstrate knowledge of presentations for different types of food.
- SLO 10.6.3.2 Demonstrate creativity while applying a variety of presentations for different types of food.
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GLO 6.4: Apply the transferrable cross-curricular knowledge and skills from **the sciences** to the culinary arts.

No applicable SLOs.

Goal 7: Demonstrate an awareness of **sustainability** as it pertains to the culinary arts.

GLO 7.1: Demonstrate an awareness of **sustainability** as it pertains to the culinary arts.

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| SLO 10.7.1.1 | Demonstrate an awareness of the waste produced in a culinary arts facility, as well as processes for minimizing and managing the waste. |
| SLO 10.7.1.2 | Demonstrate an awareness of the disposal and recycling of waste. |
| SLO 10.7.1.3 | Demonstrate an understanding of the need to rotate stock in a way to minimize waste (e.g., the FIFO principle—the first one in is the first one out). |
| SLO 10.7.1.4 | Demonstrate the ability to rotate stock in a way to minimize waste. |

Goal 8: Demonstrate an awareness of the **ethical and legal standards** that pertain to the culinary arts.

GLO 8.1: Identify and follow the **ethical and legal standards** that pertain to the culinary arts.

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| SLO 10.8.1.1 | Demonstrate an awareness of ethics. |
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Goal 9: Demonstrate the **employability skills** required in the culinary arts.

GLO 9.1: Demonstrate fundamental **employability skills**.

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| SLO 10.9.1.1 | Demonstrate employability skills (e.g., being prepared for work on time, setting up workstations, staying on task, working productively, accepting responsibility for one's actions, etc.). |
| SLO 10.9.1.2 | Demonstrate adherence to a professional dress code. |
| SLO 10.9.1.3 | Demonstrate the skills required to work as a member of a team. |
| SLO 10.9.1.4 | Demonstrate initiative in performing tasks. |

GLO 9.2: Demonstrate an understanding of the **business operation** of a culinary establishment.

- SLO 10.9.2.1 Demonstrate an awareness of the business characteristics of enterprises such as restaurants, catering establishments, hotels, etc., including the need to generate a profit.
- SLO 10.9.2.2 Demonstrate an awareness of the ways in which employees can contribute to the success of a business.
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GLO 9.3: Demonstrate the knowledge, skills, and attitudes required to **think critically** in order to solve complex problems.

- SLO 10.9.3.1 Demonstrate an awareness of critical thinking and problem solving.
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GLO 9.4: Demonstrate an awareness of **culture** and **diversity**, and its importance in the workplace.

- SLO 10.9.4.1 Demonstrate an awareness of culture and diversity.
- SLO 10.9.4.2 Demonstrate an awareness of some of the cultural perspectives surrounding food and its preparation.
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Goal 10: Demonstrate an understanding of the **scope** of the culinary arts (along with associated professions), including **working conditions**, and **training** and **career opportunities**.

GLO 10.1: Demonstrate an understanding of the **scope** of the culinary arts (along with associated professions), including **working conditions**.

- SLO 10.10.1.1 Demonstrate an awareness of the scope of the culinary arts and associated professions.
- SLO 10.10.1.2 Demonstrate an awareness of the working conditions typically found in the culinary arts and associated professions.
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GLO 10.2: Demonstrate an understanding of **career** and **training opportunities** in the culinary arts and associated professions.

- SLO 10.10.2.1 Demonstrate an awareness of the High School Apprenticeship Program (HSAP), and how it can help students reach their goals.
- SLO 10.10.2.2 Demonstrate an awareness of career opportunities in the culinary arts and associated professions.
- SLO 10.10.2.3 Demonstrate an awareness of apprenticeship, including how to become an apprentice and a certified chef.
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Goal 11: Demonstrate an understanding of the **evolution** of, and the **innovations and new trends** in, the culinary arts.

GLO 11.1: Demonstrate an understanding of the **evolution** of, and the **innovations and new trends** in, the culinary arts.

SLO 10.11.1.1 Demonstrate an awareness of traditional culinary arts processes and equipment.
