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EXPLORATION OF BAKING AND
PASTRY ARTS (9)

15S/15E/15M

10S/10E/10M

A Baking and Pastry Arts Course

8231: EXPLORATION OF BAKING AND PASTRY ARTS (9) 15S/15E/15M AND 10S/10E/10M

Course Description

This is an **optional** course intended for students wishing to explore the baking and pastry arts. The emphasis is on introductory, hands-on activities.

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

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

- SLO 9.1.1.1: Demonstrate knowledge of proper handwashing practices.
- SLO 9.1.1.2: Demonstrate knowledge of correct dish and ware washing facilities and techniques, approved sanitizers, and proper utensil storage.
- SLO 9.1.1.3: Demonstrate the ability to adhere to the standards of dress, personal hygiene, and grooming for professional bakers.
- SLO 9.1.1.4: Demonstrate knowledge of proper personal hygiene practices.
- SLO 9.1.1.5: Demonstrate knowledge of the types and uses of sanitizing agents such as chlorine-based and quaternary solutions.
- SLO 9.1.1.6: Demonstrate knowledge of sanitation specifications.
- SLO 9.1.1.7: Demonstrate knowledge of the importance of washing tools and equipment prior to sanitation.
- SLO 9.1.1.8: Demonstrate knowledge of the importance of following sanitizing product instructions.
- SLO 9.1.1.9: Demonstrate knowledge of the importance of storing sanitized tools, equipment, and sanitizing agent.

GLO 1.2: Demonstrate safe **food-handling** practices.

- SLO 9.1.2.1: Demonstrate the steps to prevent cross-contamination, chemical contamination, physical contamination, and contamination by allergens.
- SLO 9.1.2.2: Demonstrate the ability to practise preventative measures to avoid food-borne illnesses.
- SLO 9.1.2.3: Demonstrate knowledge of basic food microbiology.
- SLO 9.1.2.4: Demonstrate knowledge of holding temperature for different products.
- SLO 9.1.2.5: Demonstrate knowledge of cooling procedures.

SLO 9.1.2.6: Demonstrate knowledge of holding time.

SLO 9.1.2.7: Demonstrate the ability to prepare product for holding.

GLO 1.3: Create and maintain a safe work environment.

SLO 9.1.3.1: Demonstrate the safe use and care of bakery utensils and equipment.

SLO 9.1.3.2: Demonstrate knowledge of the importance of emergency planning procedures.

SLO 9.1.3.3: Demonstrate knowledge of how the Workers Compensation Act relates to the profession of baker.

SLO 9.1.3.4: Demonstrate knowledge of proper fire extinguishing operations.

SLO 9.1.3.5: Demonstrate knowledge of 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 9.1.3.6: Demonstrate knowledge of the Workplace Hazardous Materials Information System (WHMIS) and safety regulations.

SLO 9.1.3.7: Demonstrate the ability to access WHMIS information.

SLO 9.1.3.8: Demonstrate knowledge of regulations and safety programs such as Good Manufacturing Practices (GMP) and Hazard Analysis and Critical Control Points (HACCP), and the product recall process.

SLO 9.1.3.9: Demonstrate the ability to inform customers of health risks.

SLO 9.1.3.10: Demonstrate the ability to identify and report potential hazards.

SLO 9.1.3.11: Demonstrate the ability to identify and report problems related to rodents and other pests.

SLO 9.1.3.12: Demonstrate knowledge of PPE such as goggles, rubber gloves, shoes, oven mitts, and pads.

SLO 9.1.3.13: Demonstrate knowledge of safety equipment such as fire extinguishers, first aid kits, and eyewash stations.

SLO 9.1.3.14: Demonstrate the ability to locate PPE and safety equipment.

SLO 9.1.3.15: Demonstrate the ability to identify worn, defective, and expired PPE and safety equipment.

SLO 9.1.3.16: Demonstrate the ability to adjust PPE for individual use.

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

GLO 2.1: Demonstrate the safe and appropriate **operation of baking equipment and utensils.**

- SLO 9.2.1.1: Demonstrate the safe and appropriate operation and/or use of tools and equipment associated with patisserie and baking.
- SLO 9.2.1.2: Demonstrate the ability to select non-mechanized equipment for a specific task.
- SLO 9.2.1.3: Demonstrate knowledge of the types of mechanized equipment.
- SLO 9.2.1.4: Demonstrate the ability to select equipment for specific tasks such as mixing, baking, and packaging.
- SLO 9.2.1.5: Demonstrate the ability to assemble and disassemble equipment such as mixers and depositors.
- SLO 9.2.1.6: Demonstrate knowledge of the types of measuring devices such as scoops and measuring cups.
- SLO 9.2.1.7: Demonstrate knowledge of temperature measuring devices such as thermometers and water meters.
- SLO 9.2.1.8: Demonstrate the ability to select measuring devices for a task.
- SLO 9.2.1.9 : Demonstrate the ability to set measuring devices.
- SLO 9.2.1.10: Demonstrate the ability to verify the accuracy of measuring devices.
- SLO 9.2.1.11: Demonstrate the ability to use a balance scale.
- SLO 9.2.1.12: Demonstrate knowledge of the composition of pans such as aluminum, steel, silicone, and plastic.
- SLO 9.2.1.13: Demonstrate knowledge of pan shapes such as ring, spring form, and Bundt.
- SLO 9.2.1.14: Demonstrate knowledge of linings such as silicone, paper, and muffin cups.
- SLO 9.2.1.15: Demonstrate the ability to identify the pan and coating to be used.
- SLO 9.2.1.16: Demonstrate the ability to monitor cooler and freezer temperatures.
- SLO 9.2.1.17: Demonstrate the safe and appropriate cleaning and maintenance of the equipment and utensils used in the preparation of patisserie and baking.
- SLO 9.2.1.18: Demonstrate knowledge of the purpose of assorted hand tools; including piping bags, various tips, rolling pins, and various palette knives.

- SLO 9.2.1.19: Demonstrate knowledge of the purpose of various non-mechanized equipment.
- SLO 9.2.1.20: Demonstrate the ability to select a hand tool for a specific task such as cutting, scraping, or finishing.
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GLO 2.2: Demonstrate the safe and appropriate **cleaning, maintenance, and storage of baking equipment and utensils.**

- SLO 9.2.2.1: Demonstrate the safe and appropriate cleaning, maintenance, and storage of the equipment and utensils used in the baking and pastry arts.
- SLO 9.2.2.2: Demonstrate awareness of the processes for sharpening tools and equipment such as knives and scrapers.
- SLO 9.2.2.3: Demonstrate the ability to keep the workplace clean.
- SLO 9.2.2.4: Demonstrate the ability to care for pans.
- SLO 9.2.2.5: Demonstrate knowledge of the maintenance requirements of tools and equipment.
- SLO 9.2.2.6: Demonstrate the ability to clean tools and equipment such as mixers, hand tools, and proofers.
- SLO 9.2.2.7: Demonstrate awareness of the lubrication of components such as oven chains, rack wheels, and moulder gears.
- SLO 9.2.2.8: Demonstrate the ability to filter and replace deep fryer oil.
- SLO 9.2.2.9: Demonstrate the ability to store tools and equipment.
- SLO 9.2.2.10: Demonstrate knowledge of the calibration of tools and equipment such as thermometers and slicing blades.
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Goal 3: Demonstrate an understanding of **bakery ingredients, components, recipes/formulations, and products, as well as their nutritional qualities.**

GLO 3.1: Demonstrate an understanding of **bakery ingredients**, and how their characteristics are used to design **formulations** and prepare bakery products.

- SLO 9.3.1.1: Demonstrate a basic understanding of baking ingredients and their functions.
- SLO 9.3.1.2: Demonstrate the ability to label products with information.
- SLO 9.3.1.3: Demonstrate knowledge of ingredients in recipes/formulations.
- SLO 9.3.1.4: Demonstrate knowledge of pan coatings such as butter, oil/shortening, release agents, and flour.
- SLO 9.3.1.5: Demonstrate knowledge of cocoa and cocoa powder content.

- SLO 9.3.1.6: Demonstrate an understanding of the differences between couverture and compound.
 - SLO 9.3.1.7: Demonstrate knowledge of melting points and maximum temperatures for compound chocolate.
 - SLO 9.3.1.8: Demonstrate knowledge of effects of moisture on compound chocolate.
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GLO 3.2: Demonstrate an understanding of **recipes/formulations** used in baking.

- SLO 9.3.2.1: Demonstrate an understanding of recipes/formulations.
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GLO 3.3: Demonstrate an understanding of the characteristics of **bakery components and products**.

- SLO 9.3.2.1: Demonstrate the use of convenience products.
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GLO 3.4: Demonstrate an understanding of **nutrition**.

- SLO 9.3.4.1: Demonstrate an awareness of health and nutritional information.
 - SLO 9.3.4.2: Demonstrate knowledge of health risks (e.g., allergens, unhealthy levels of fats) of some bakery products.
 - SLO 9.3.4.3: Demonstrate knowledge of the nutritional components of patisserie and baking products, and their place in a healthy lifestyle.
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Goal 4: Demonstrate the appropriate **receiving, handling, quality assurance, packaging, storage, and inventory control** of baking ingredients and baked products.

GLO 4.1: Demonstrate the appropriate **receiving, handling, quality assurance, packaging, storage, and inventory control** of baking ingredients and baked products.

- SLO 9.4.1.1: Demonstrate the appropriate receiving, handling, quality assurance, packaging, storage, and inventory control of baking ingredients and baked products.
 - SLO 9.4.1.2: Demonstrate the ability to rotate inventory using the “first in, first out” (FIFO) method.
 - SLO 9.4.1.3: Demonstrate the ability to label and date storage containers.
 - SLO 9.4.1.4: Demonstrate the ability to hold and store compound chocolate.
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Goal 5: Demonstrate the appropriate **preparation (mise en place), mixing, make-up, baking, finishing (or decorating), and presentation** of baking ingredients and products.

GLO 5.1: Demonstrate the appropriate **preparation (mise en place), mixing, and make-up** of baking ingredients and products.

SLO 9.5.1.1: Demonstrate the appropriate preparation (mise en place) of baking products.

SLO 9.5.1.2: Demonstrate the ability to apply coatings.

SLO 9.5.1.3: Demonstrate the ability to melt compound chocolate.

GLO 5.2: Demonstrate the appropriate **baking** of various products.

SLO 9.5.2.1: Demonstrate the ability to prepare a variety of baked goods.

SLO 9.5.2.2: Demonstrate the ability to prepare a variety of cookies.

SLO 9.5.2.3: Demonstrate the ability to prepare a variety of quick breads.

SLO 9.5.2.4: Demonstrate the ability to prepare a variety of yeast products.

SLO 9.5.2.5: Demonstrate the ability to prepare a variety of pies, tarts, and flans.

SLO 9.5.2.6: Demonstrate the ability to prepare a variety of cakes.

SLO 9.5.2.7: Demonstrate the ability to determine doneness of product.

GLO 5.3: Demonstrate the appropriate **assembly, finishing, and decorating** of baked products.

SLO 9.5.3.1: Demonstrate knowledge of finishing or decorating a variety of baked goods.

SLO 9.5.3.2: Demonstrate knowledge of types of finishes such as icing, chocolate, and sugar.

SLO 9.5.3.3: Demonstrate the ability to select finishes for specific products.

SLO 9.5.3.4: Demonstrate knowledge of finishing or decorating a variety of cookies.

SLO 9.5.3.5: Demonstrate knowledge of finishing or decorating a variety of quick breads.

SLO 9.5.3.6: Demonstrate knowledge of finishing or decorating a variety of yeast products.

SLO 9.5.3.7: Demonstrate knowledge of finishing or decorating a variety of pies, tarts, or flans.

SLO 9.3.5.8: Demonstrate knowledge of finishing or decorating a variety of cakes.

GLO 5.4: Demonstrate the appropriate **presentation** of baked products.

SLO 9.5.4.1: Demonstrate the appropriate presentation of baked goods.

SLO 9.5.4.2: Demonstrate knowledge of final use of product.

SLO 9.5.4.3: Demonstrate the ability to score products to indicate desired portions.

SLO 9.5.4.4: Demonstrate the ability to portion in desired shapes and sizes.

Goal 6: Understand **career opportunities** in baking.

GLO 6.1: Describe **apprenticeship, education, and career opportunities, as well as professional organizations** in the baking industry.

SLO 9.6.1.1: Demonstrate knowledge of apprenticeship, education, and career opportunities as well as professional organizations in baking.

SLO 9.6.1.2: Demonstrate knowledge of career opportunities related to baking (e.g., food science and research, nutritionist, dietician, hospitality management, baking teacher, food stylist, etc.).

Goal 7: Describe and demonstrate the transferable, **cross-curricular** knowledge and skills as they pertain to baking.

GLO 7.1: **Read, interpret, and communicate** information relevant to baking.

SLO 9.7.1.1: Demonstrate knowledge of types of documents.

SLO 9.7.1.2: Demonstrate the ability to read, understand, and follow recipes, formulations, and directions.

GLO 7.2: Apply **mathematics** knowledge and skills relevant to baking.

SLO 9.7.2.1: Demonstrate knowledge of basic mathematics.

SLO 9.7.2.2: Demonstrate the ability to convert metric and imperial measurements.

GLO 7.3: Apply **science** knowledge and skills relevant to baking.

SLO 9.7.3.1: Demonstrate an understanding of chemical leavening agents.

GLO 7.4: Apply **other subject areas** (French, physical education/health education, information communication, and technology) knowledge and skills relevant to baking.

- SLO 9.7.4.1: Demonstrate familiarity with French terms used in relation to baking and the pastry arts.
- SLO 9.7.4.2: Demonstrate knowledge of types of computerized equipment.
- SLO 9.7.4.3: Demonstrate the ability to use a digital/computer scale.
- SLO 9.7.4.4: Demonstrate knowledge of methods of communication such as verbal, written, and electronic.
- SLO 9.7.4.5: Demonstrate the ability to use communication equipment such as computers, fax machines, and telephones.

Goal 8: Demonstrate awareness of **sustainability** as it pertains to the baking industry.

GLO 8.1: Describe the impact of **human sustainability** on the health and well-being of bakers and consumers of baked products.

- SLO 9.8.1.1: Demonstrate the ability to define sustainability as it relates to human health and well-being.
- SLO 9.8.1.2: Demonstrate the ability to identify sustainable factors that influence human health and well-being for bakers and consumers of baked products.

GLO 8.2: Describe the baking industry's sustainability practices and impact on the **environment**.

- SLO 9.8.2.1: Demonstrate knowledge of the importance of reducing the amount of resources used and waste generated.

GLO 8.3: Describe **sustainable economic practices** within the baking industry.

- SLO 9.8.3.1: Demonstrate knowledge of the importance of economic sustainability to a bakery and the community.
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Goal 9: Demonstrate awareness of the **ethical and legal standards** as they pertain to baking.

GLO 9.1: Apply the **ethical and legal standards** as they pertain to baking.

SLO 9.1.1.1: Demonstrate knowledge of basic regulations regarding substitution of ingredients.

SLO 9.1.1.2: Demonstrate knowledge of regulations related to weights and measures.

SLO 9.1.1.3: Demonstrate knowledge of the importance of ethical standards in the baking industry.

SLO 9.1.1.4: Demonstrate knowledge of health inspections.

Goal 10: Demonstrate the **employability skills** related to the baking industry.

GLO 10.1: Demonstrate **fundamental employability skills**.

SLO 9.10.1.1: Demonstrate employability skills (e.g., being prepared for work on time, setting up workstations, staying on task, accepting responsibility for their actions, etc.).

SLO 9.10.1.2: Demonstrate professional dress code.

SLO 9.10.1.3: Demonstrate the skills required to work as a member of a team.

SLO 9.10.1.4: Demonstrate initiative in performing tasks.

SLO 9.10.1.5: Demonstrate the ability to communicate with professionals such as co-workers, suppliers, and service professionals.

SLO 9.10.1.6: Demonstrate the ability to communicate with supervisors/teachers, co-workers, and customers in an effective manner.

GLO 10.2: Demonstrate an understanding of the **business operation** of a bakeshop.

No applicable SLOs.

Goal 11: Understand the **evolution and technological progression of, and the emerging trends in** baking.

GLO 11.1: Describe the **evolution and technological progression of, and the emerging trends in** baking.

No applicable SLOs.
